VOL. XLVII. No. II NOVEMBER 1962

MECCANO MAGAZINE

1/3

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REMEMBER Circuit 24 is guaranteed by Meccano Limited

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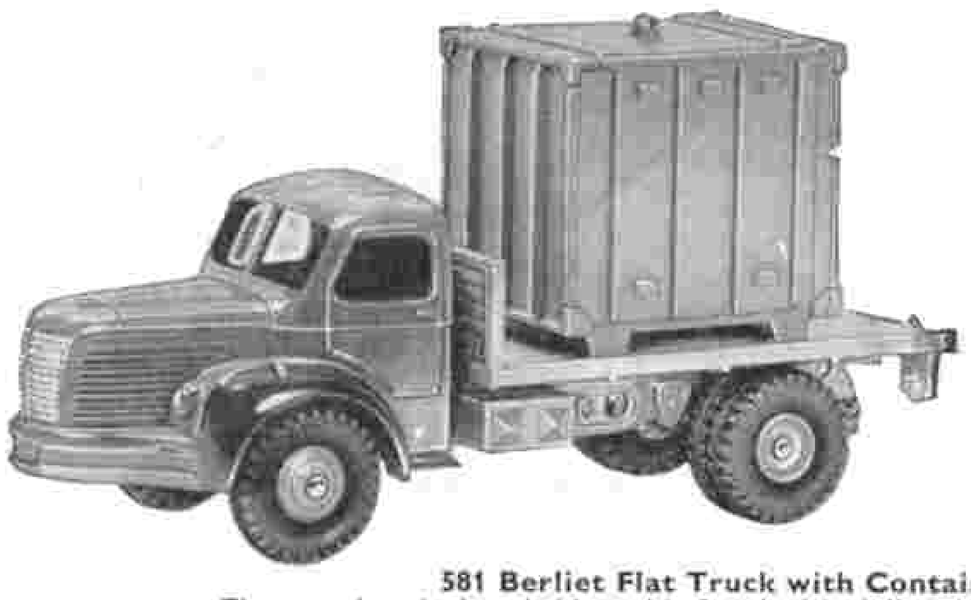

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846

847

849

850

846 Oil Drums (pack of six) U.K. Price **1/4**

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849 Packing cases (pack of six) U.K. Price **1/4**

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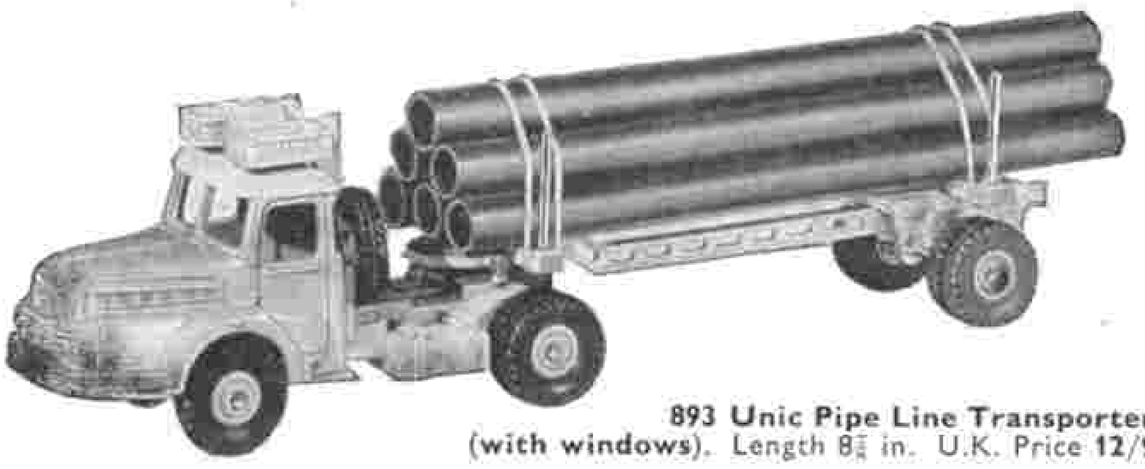
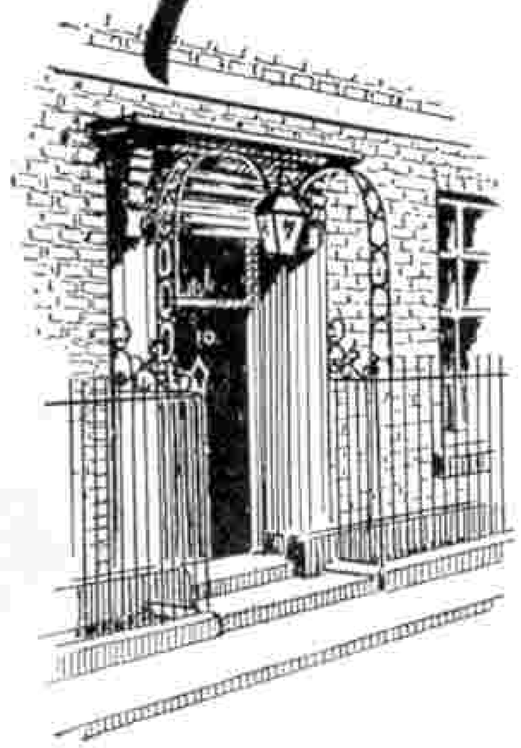
851 Set of 2 each Nos. 846, 847, 849 & 850 (pack of eight) U.K. Price **1/9**



893 Unic Pipe Line Transporter (with windows). Length 8⅛ in. U.K. Price **12/9**

553 Peugeot 404. Length 4⅛ in. U.K. Price **5/11**

One of many famous DAWES



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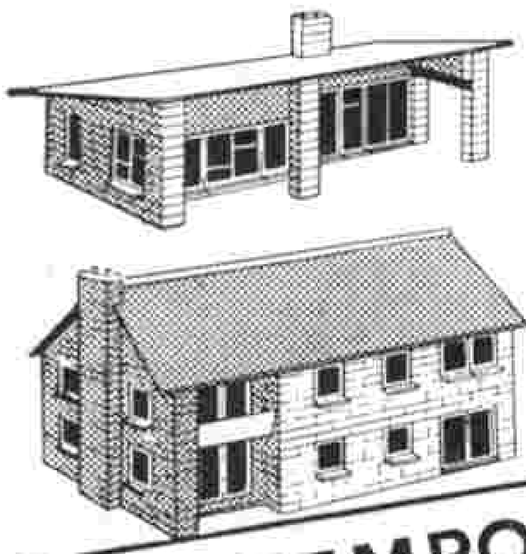

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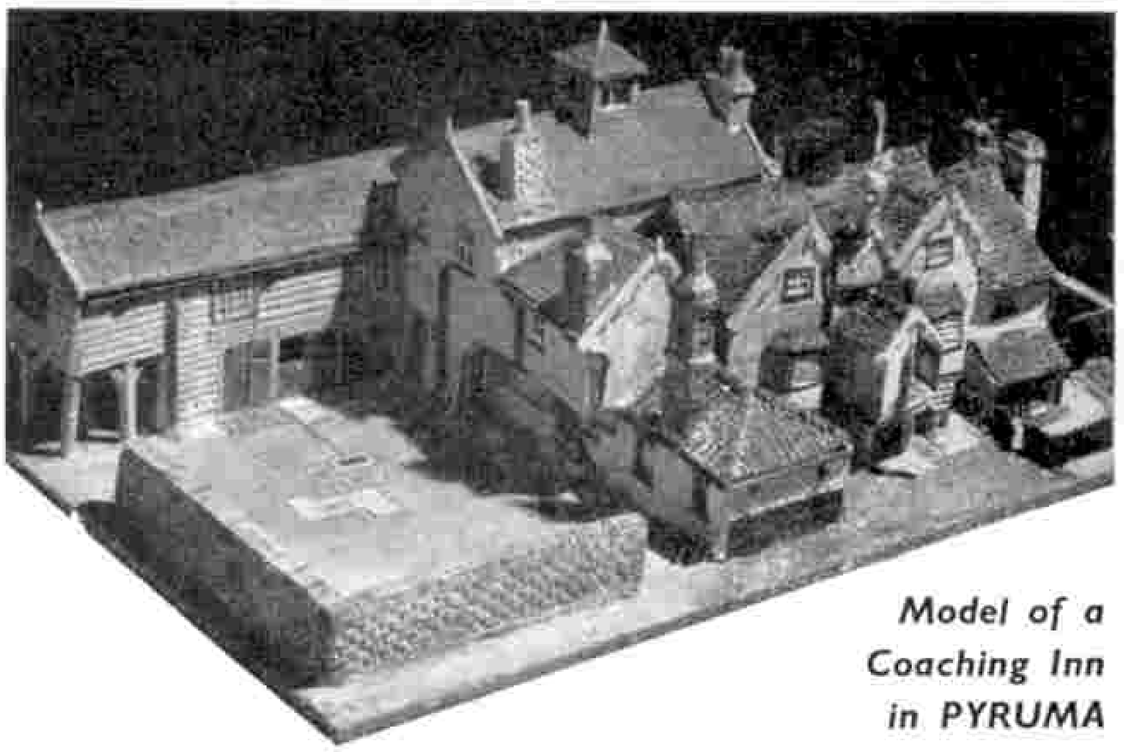

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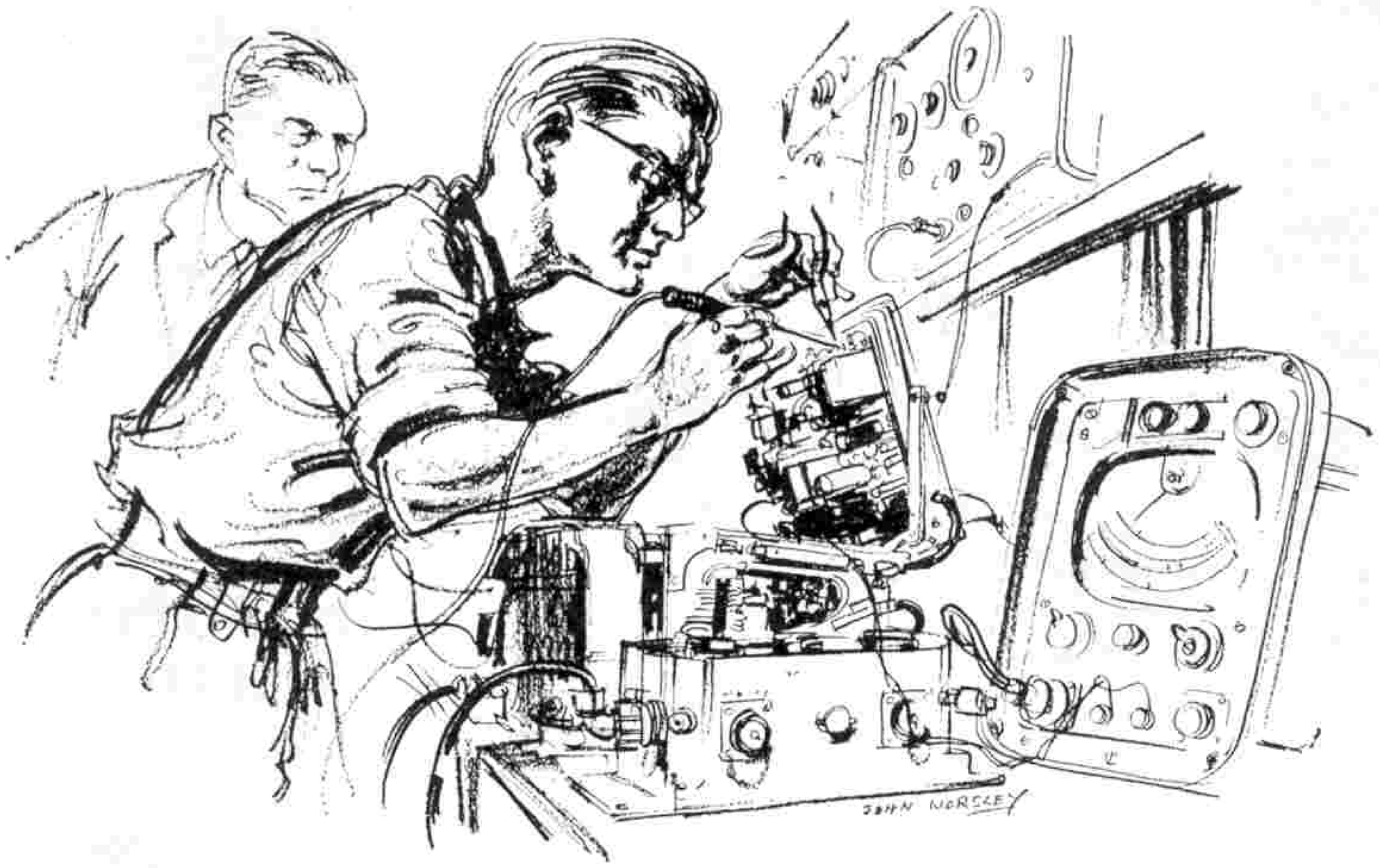

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AA12/QF

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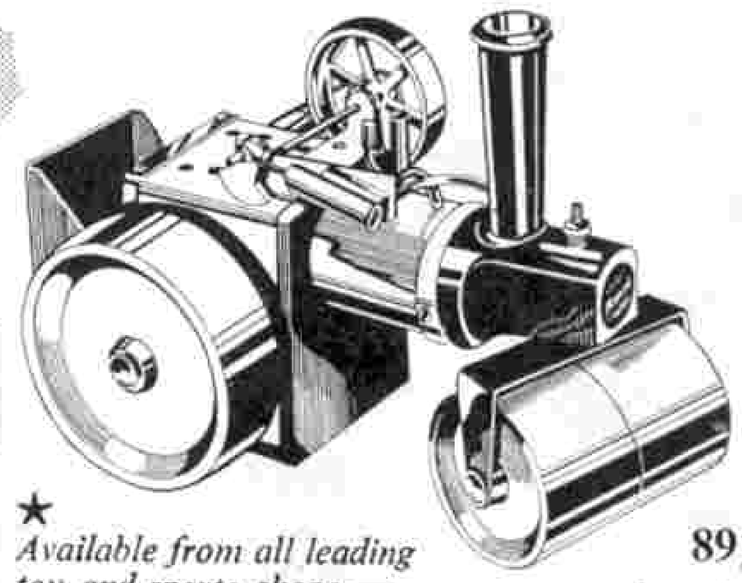

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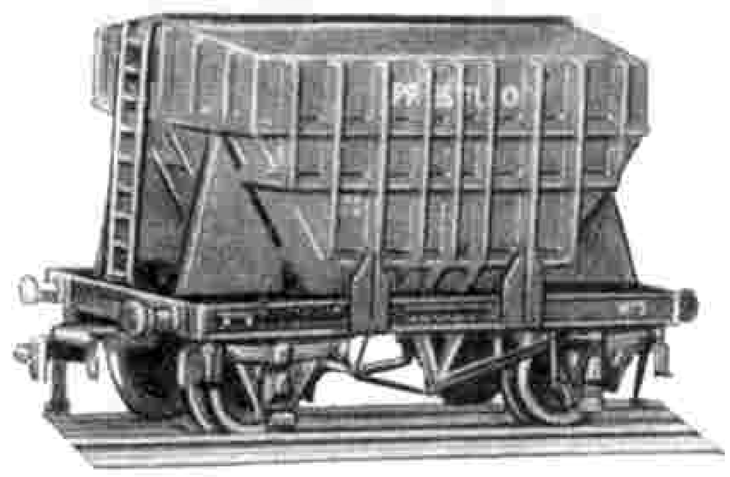

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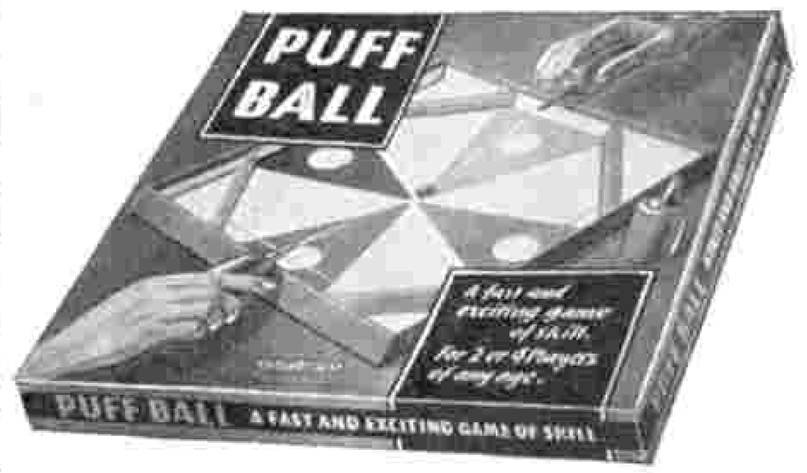

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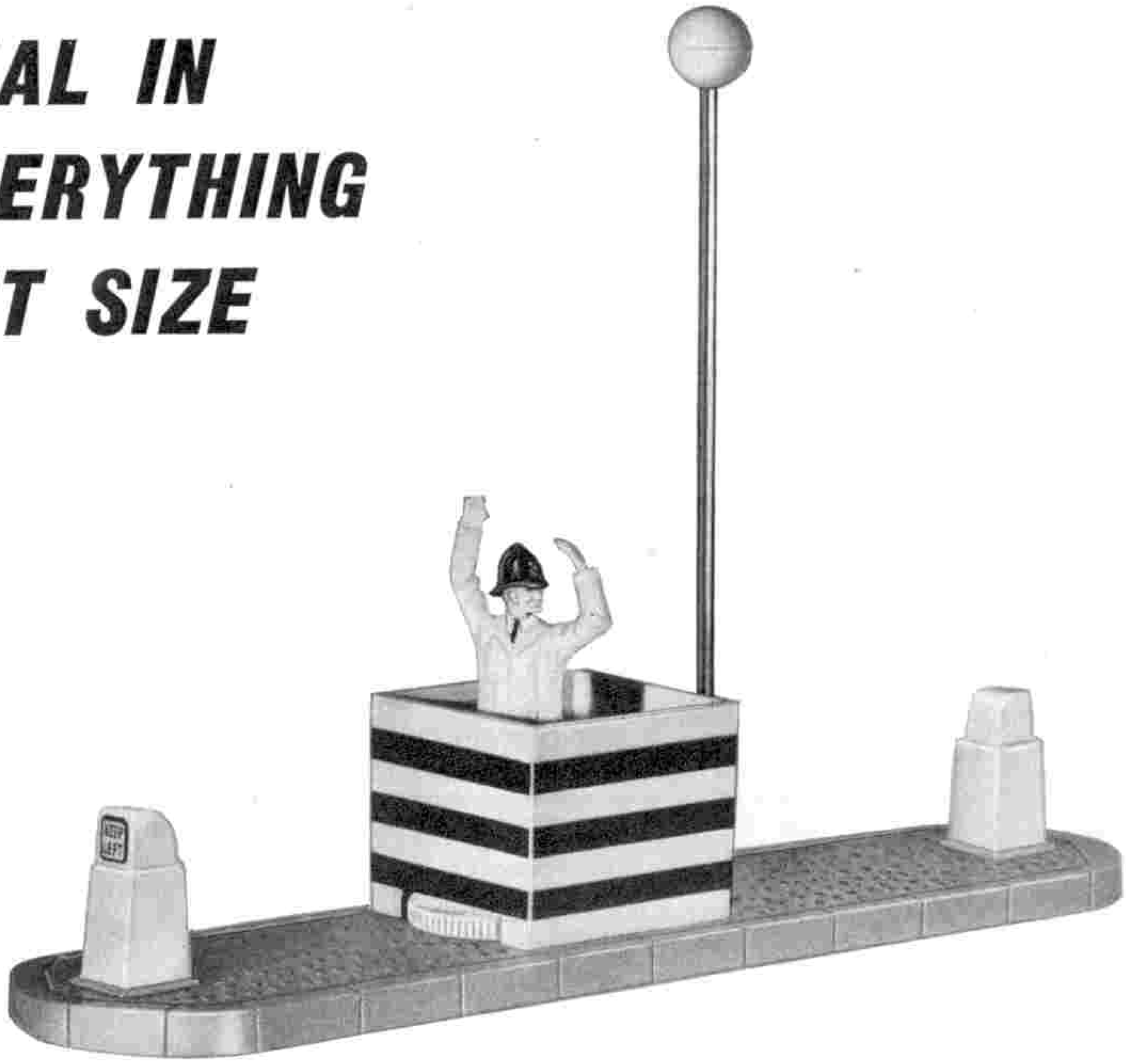

NEW

DINKY TOYS No. 753
POLICE CONTROLLED CROSSING

This delightful little miniature, manufactured from high-impact polystyrene, has a policeman who can be turned around in his box by means of the knurled knob protruding at the base of the box. It is available in kit form with the lamp standard, policeman and his box being supplied separated from the base. These are easy to fix, and if required, can be glued permanently in place. A "must" for your layout! U.K. Price **3/6**

DINKY TOYS
TRADE MARK REGISTERED

MADE BY MECCANO LIMITED

MECCANO MAGAZINE

Volume XLVII **No. 11** **November 1962**

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ERNEST MILLER

OUR Editorial photograph this month, which was sent to me by Mr. Reece Winstone, a reader of the *M.M.* for many years, shows the architectural beauty of that part of Temple Meads Station, Bristol, designed by Isambard Kingdom Brunel. The famous Brunel, who was appointed engineer to the Great Western Railway in 1833 at the age of 26, planned this portion of Temple Meads Station, as you see it here, between 1838 and 1840 and indeed it was completed in the latter year. There are 20 ten-foot bays and the centre span of the roof is 72 feet. The platforms are 20 feet wide. The roof is perfect in condition, in spite of the vibrations of trains that have used the station since 1840 and near misses by bombs during the last war. Temple Meads is the beginning of the rail line which connects London with the West. Mr. Winstone, in his letter to me writes, "As Betjeman reminds us, it is not a line for taking Bristolians to London, but for taking Londoners to Bristol. It is therefore Bristol's line, not London's". Mr. Winstone adds that Bristolians generally do not realise the importance of this relic, but that the Bristol Civic Society has proposed that a suitable plaque should be put there.

Since I last wrote to you I have been seeing for myself the Army's latest armoured vehicles at the Fighting Vehicles Research and Development Centre in the South of England. Having had the opportunity to inspect something over 100 of the latest type of vehicles I had the great thrill of being taken round the Army's severe test track in the Saracen Mark II Armoured Personnel Carrier, which carries a total of twelve men, including driver and commander, and is equipped for wading. In pouring rain, on a greasy road, we travelled at towards 40 miles an hour. Later I had another exciting trip in a track-driven Armoured Personnel Carrier, the Trojan, which is powered by a Rolls-Royce petrol engine. This machine is portable by air, it can float when laden, and it can swim from landing craft to shore. Amphibious vehicles that could propel themselves through waves up to ten feet in height were on show, but possibly the most fascinating part of the exhibition was the Ark, a pressure lifting vessel in the shape of an enormous balloon which can carry, over water, a one-ton vehicle slung from its roof.

THE EDITOR

Next Month: SPECIAL CHRISTMAS FEATURES

THIS MONTH'S CONTENTS INCLUDE—

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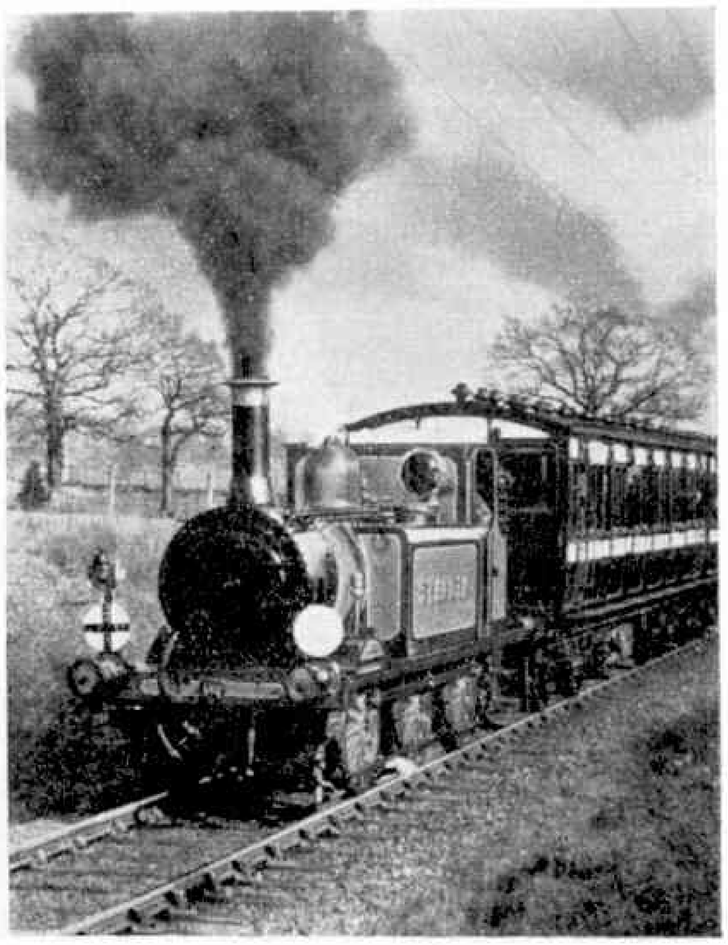
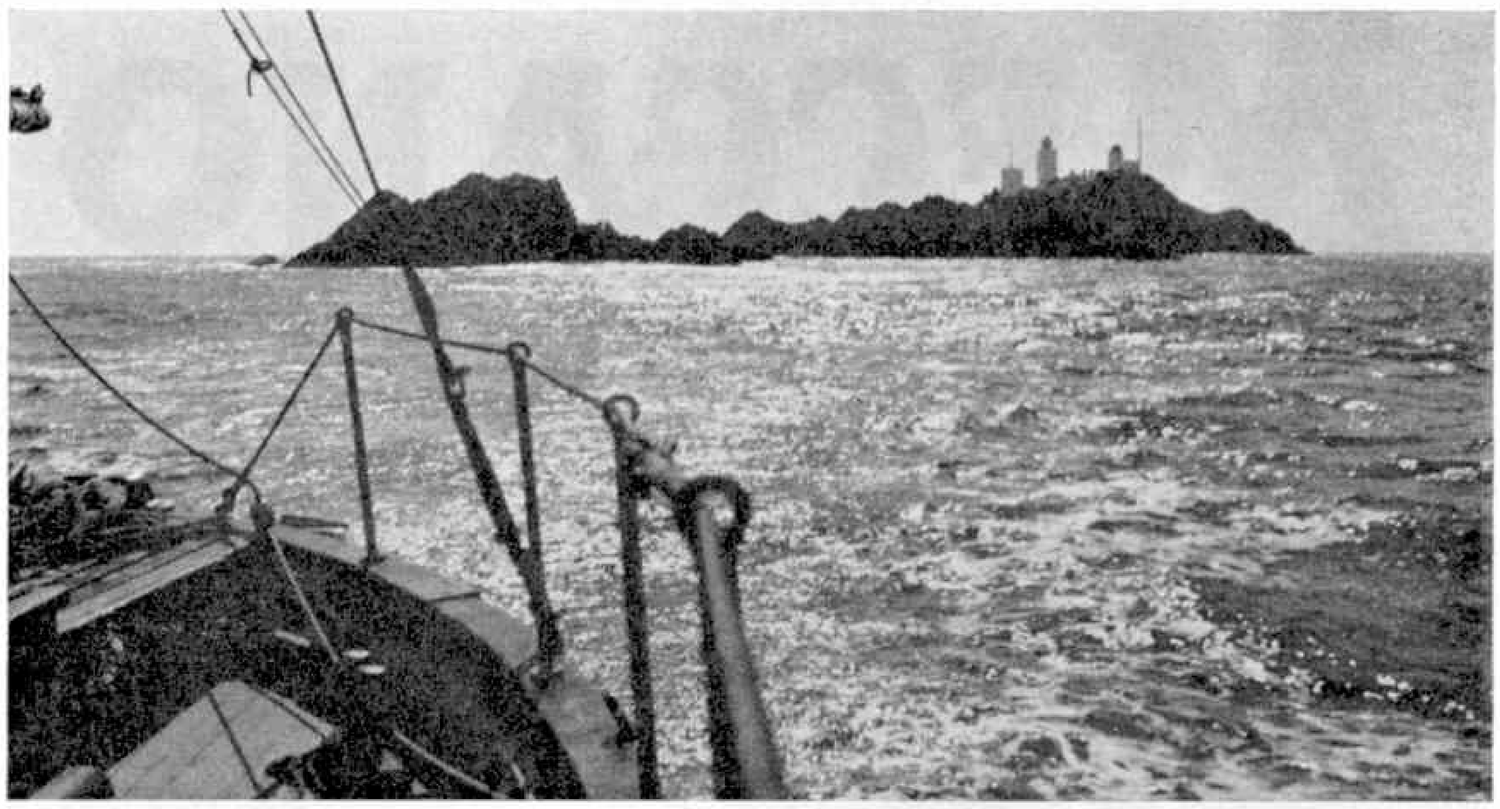
OUR FRONT COVER

Our cover this month, based on a photograph by P. J. Lynch, shows a colourful train on the Bluebell Line in Sussex, so called because of the rural woodland country traversed by a secondary connecting line between East Grinstead and Lewes that was closed in 1958. Since 1960 the four and three-quarter mile single line section between Horsted Keynes and Sheffield Park has been leased to the Bluebell Line Preservation Society, which operated a successful passenger train service from spring to autumn in 1961 and 1962, mainly with volunteer enthusiast staff. The several veteran steam locomotives used include the former L.B.S.C. 0–6–0 T Stepney, restored, as shown on the cover, to its striking original livery.



The Casquets—Graveyard Of Many Ships



Approaching the Casquets demands great skill and an expert knowledge of the local currents and weather conditions.

ON the morning of March 30, 1899, the London and South Western Railway Company's mail steamer s.s. *Stella* sailed from Southampton for the Channel Islands. A sea mist was gathering in the Channel and the English coastline soon disappeared from sight.

Visibility became worse, and by mid-day the *Stella* was nosing into a thick fog. The captain still maintained his speed, for competition between vessels on the Channel Islands' run was fierce and good time-keeping was considered essential. But the s.s. *Stella*, scheduled to arrive at Guernsey at 5.30, never reached port.

At 4 o'clock, a look-out on the *Stella* sighted rocks, dead ahead and dangerously close, and the captain immediately brought his vessel hard round to port. The ship's hull just grazed the rocks, and then she sheered away into deep water. She was badly holed beneath the water-line, and sank within eight minutes with a loss of 88

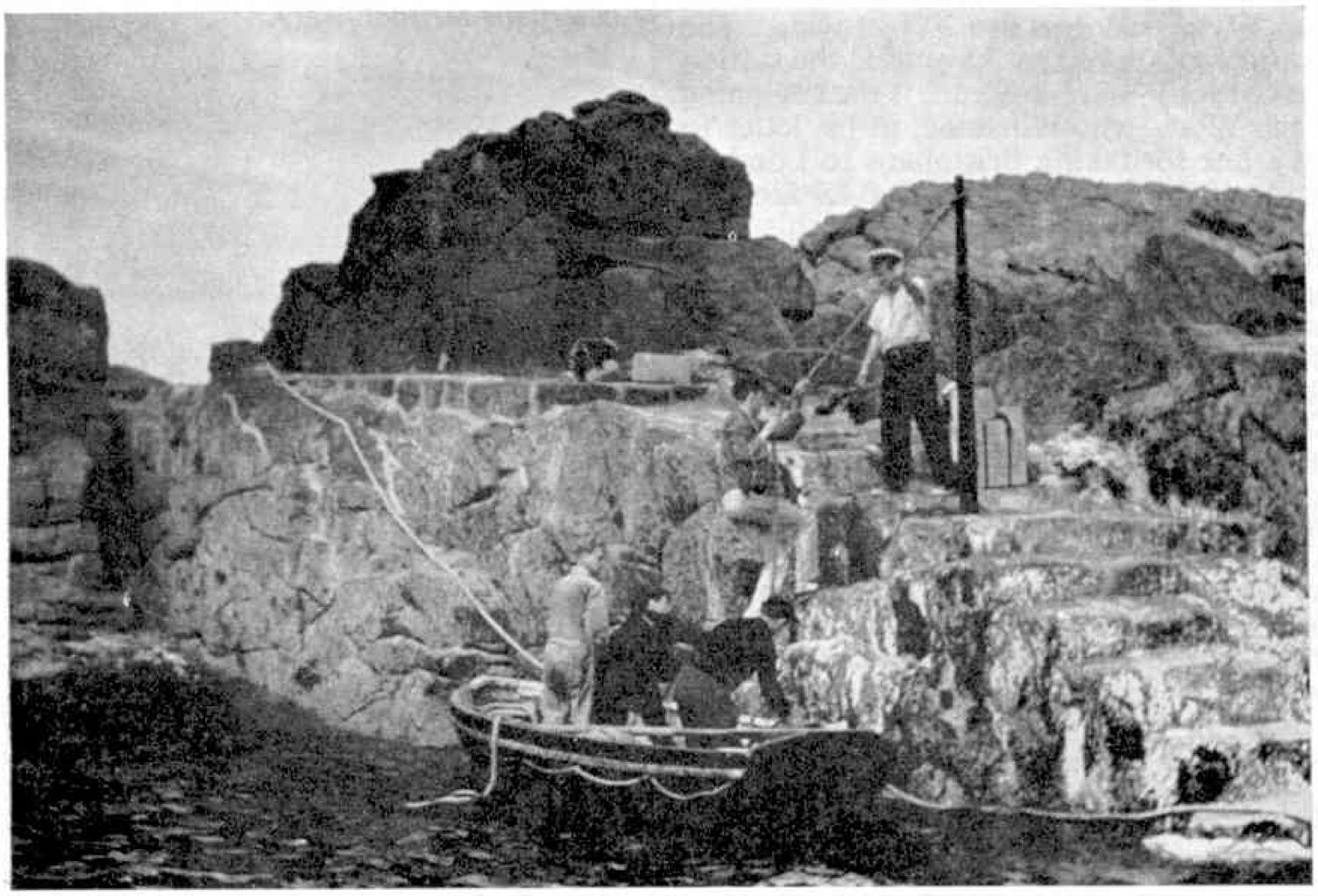
By

D. R. JEFFERSON

passengers and 24 crew. It has been argued that if the captain had not altered course, the s.s. *Stella* would have settled firmly on the rocks and many lives might have been saved.

One survivor of this appalling disaster was a 14-year-old boy whose mother had tied an inflated football to the lapel of his overcoat.

The landing places on the main rock are very exposed and can only be used in relatively calm weather.

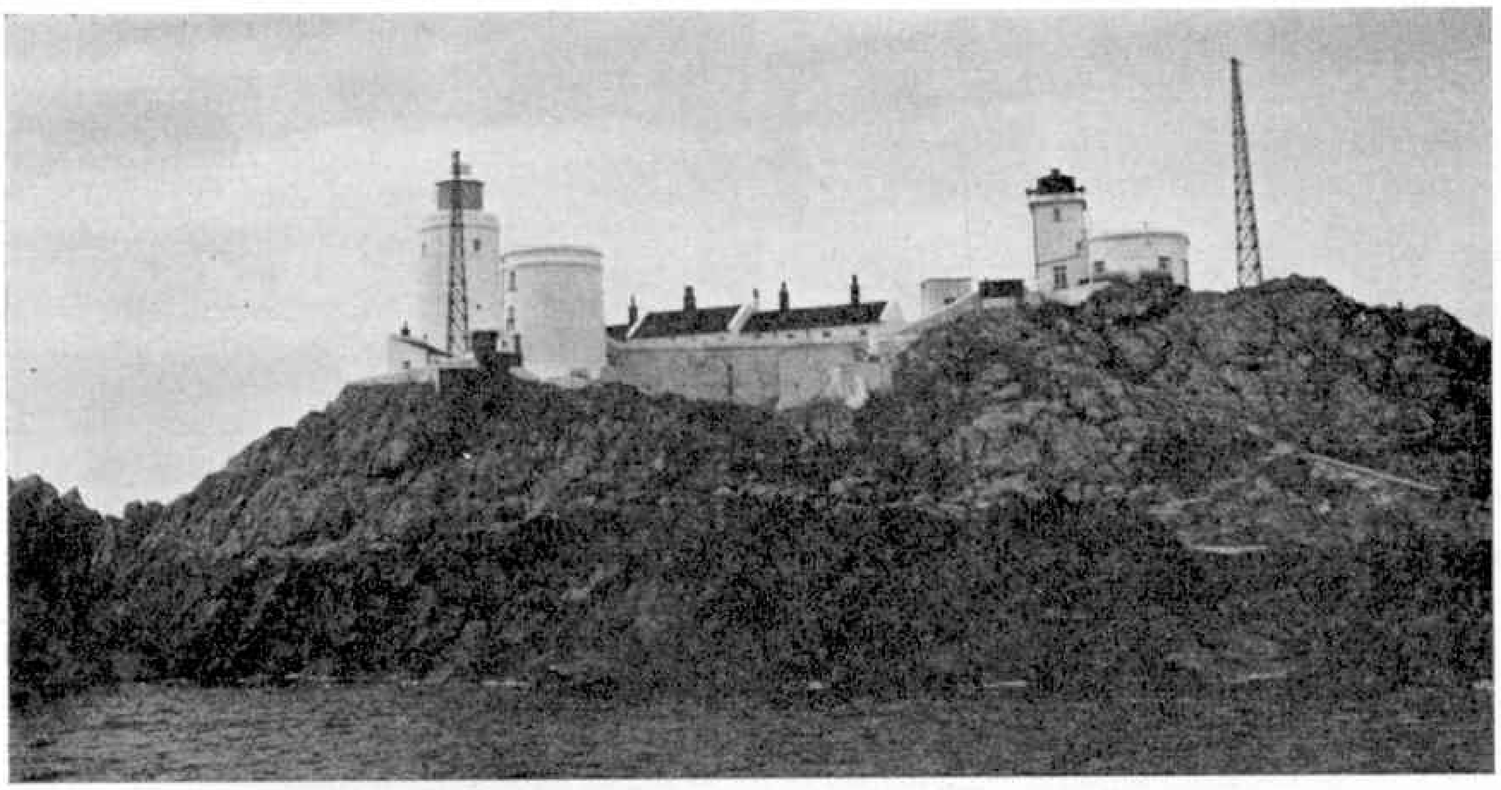


The football kept the boy's head above water, and he managed to reach an overturned lifeboat. He clung to the keel and for several hours drifted in the tidal race around Alderney; then the boat suddenly righted itself, throwing the boy back into the sea. He managed to crawl back into the lifeboat and was eventually rescued off the French coast, near Cherbourg. But the boy's mother and brother were among the 88 passengers who were drowned.

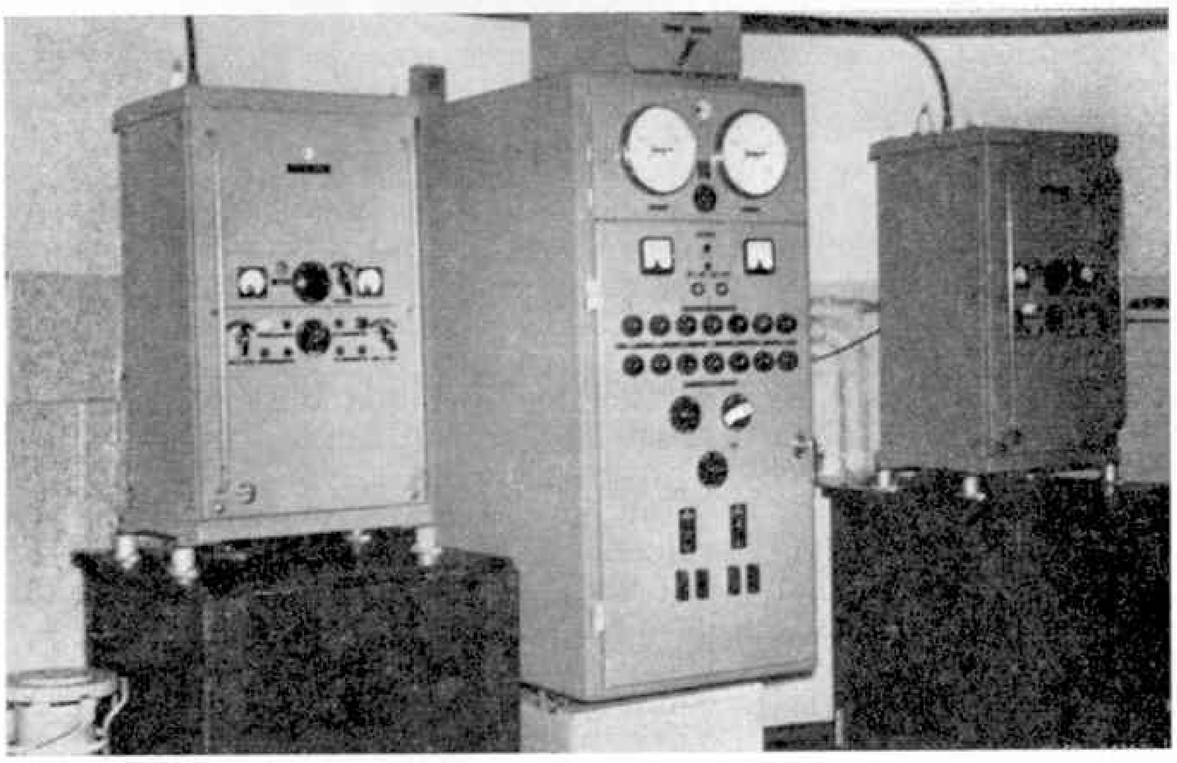
The s.s. *Stella* is one of many ships that have come to grief on the Casquets—a group of rocks lying five and a half miles west of Alderney and seventeen miles from the Normandy coast. In 1744 the British man o' war *Victory*, with a complement of 1,100, was driven on to them. Some historians believe that several centuries earlier it was the same rocks that claimed the *Blanche Nef* or White Ship—a magnificent new sailing vessel that foundered on passage from Normandy to England. She was carrying Prince William, son of Henry I. A boat was lowered for the prince, and a handful of sailors pulled away from the sinking vessel. The prince might have been saved, but he ordered the sailors to return to the White Ship, for his sister, and his boat was capsized by panic-stricken seamen trying to save themselves by scrambling aboard. Only one man lived to tell the tragic tale.

* * * *

The Casquet Rocks have always been a grave hazard to shipping for they lie right in the middle of the Western approaches to the English Channel, one of the busiest shipping lanes in the world. Until the latter half of the seventeenth century there were no beacons in this area to warn ships



The three Casquet towers: The lighthouse and fog-signal house are extreme left and right respectively; the third tower contains the radio-beacon equipment.



Every six minutes, the radio-beacon equipment automatically transmits in morse the identification signal QS which can be picked up by any vessel within a 50-mile radius.

that they were standing into danger. Passages by night or in poor visibility were perilous, and navigation, without the modern scientific aids, demanded great skill.

By 1700, four lighthouses had been established in the Western Approaches—two in France and two off the English coast (the Scilly Isles and Eddystone). The Casquet Rocks remained unlit until 1724 when three separate coal fires, each enclosed in a glazed lantern, were displayed in the form of a horizontal triangle—a unique form of beacon easily identifiable by the mariner.

The foundations of the original towers on which the coal fires were mounted are still in use, but the coal fires themselves have, of course, been replaced by much more practical and efficient navigational aids. A modern lighthouse stands on one of the original towers, another has been converted into a fog-signal house and the third contains radio-beacon equipment.

The light on Casquets has its own characteristic—a group of five flashes every thirty seconds. On a clear night, the flashes can be seen seventeen miles away. The fog signal, which is started when visibility is down to three miles, automatically sounds off three long blasts every two minutes. Radio beacons are another aid to the mariner, and a complete network of these beacons, both English and French, now ranges over the entire English Channel, enabling shipping to take bearings on radio signals transmitted from fixed points—such as radio stations, lighthouses and lightships. Every six minutes the Casquet radio beacon automatically transmits, in morse, the identification signal QS which can be picked up by any vessel within a 50-mile radius. With two or more radio bearings a ship's position can be plotted with remarkable accuracy.

* * * *

Yet, even with the introduction of all these modern aids most vessels still keep a respectable distance from Casquets, for around these rocks runs one of the strongest tidal races in the English Channel. Whirling eddies, caused by the tidal stream rushing over the rugged sea-bed, can render a vessel caught in these waters totally unmanageable.

One vessel that must regularly make the trip out to Casquets is the Trinity House vessel *Burhou*. Once a month she leaves Braye Harbour, Alderney to relieve the lighthouse personnel on Casquets. Approaching the rocks demands great skill and expert knowledge of the local currents and weather conditions. There are three landing places on the main rock, all of which are very exposed and can only be used in relatively calm weather. Normally *Burhou* lies a few cables off the landing place while her tender is lowered and rowed ashore. The relief keeper then has to haul himself from the tender on to the landing place by means of a rope. Stores, equipment and mail for the other two keepers are also landed.

During the last war Casquets was occupied by the Germans. The main rock was the scene of some remarkable and daring raids by the British Commandos.

This colourful account of one of these raids contained in *Combined Operations 1940–1942* (H.M.S.O.) is reprinted by permission of the Controller of H.M. Stationery Office:

"*Shortly before midnight on 2nd September, 1942, Ober Maat (Chief Mate) Munte, who had once been a stoker in the German Navy, was seated in his office in the Casquet Lighthouse, seized by his master when the Channel Islands were occupied in July 1940. He was busy making up returns—an occupation well fitted to his rank and experience.*

"*A slight noise—it may have been the click of the door as it closed softly—caused him to turn in his chair. Leaning against the door were two men with black faces, wearing crumpled khaki uniforms, somewhat damp around the ankles. Two Colt automatics, negligently poised, were in their hands. He got slowly to his feet and passed a hand across his eyes, but when he dropped it, the figures by the doorway were still there. Chief Mate Munte began to sway, and as one of the Special Service men stepped forward, collapsed fainting with terror on the floor. To bring him round, the two black-faced men slapped his cheeks, and a short while afterwards he was in a small boat bobbing uneasily in the treacherous waters that surge about the lighthouse he had failed to guard. By then he was in the company of the six men who formed his command. Those who had not been on watch were still in their pyjamas and were wearing hair nets, which at first had caused the commander of the raiding party to mistake one of them for a woman. By four o'clock in the morning, after a stormy passage, the Germans found themselves prisoners of war in England.*"

These highly successful sorties on the Casquets by the British Commandos must have been a source of embarrassment to the German Command which was otherwise very firmly established in the Channel Islands. The Germans had converted Casquets into a minor fortress. They installed powerful radio equipment to listen-in to broadcasts between British ships and aircraft operating in the Channel, and occasionally used the light and radio-beacon to guide their own convoys. The Commandos totally destroyed the radio equipment and British aircraft attacks

(*Continued on page 467*)

● *The time of year all children love will soon be here. They have their expectations of what December 25th will bring. But the shopkeepers have their hopes, too, for at this time of the year a vast amount of money changes hands. In this article the author tells you all about . . .*

THE CASH SIDE OF CHRISTMAS

VERY shortly now Christmas will be upon us—the season when more money changes hands than at any other period of the year. Meeting the extraordinary demand for it keeps the Royal Mint and the Bank of England unusually busy.

To cope with one recent Christmas spending spree an extra £40,000,000 worth of banknotes had to be put into circulation, while the Royal Mint had to work overtime so that pockets and cash tills did not run dry!

By Arthur Nettleton

Just before Christmas, the members of Christmas clubs all over Britain have their share-outs, too, causing another big demand for money which has to be prepared for well in advance.

Cash figures in one of our popular Christmas customs—the practice of putting sixpences or threepenny bits in Christmas puddings. And there's the traditional rite of placing a few bright new coins in Christmas stockings, an idea for which the Mint continues to cater by distributing new pennies and cupro-nickel coins a short time ahead of the festive season.

Christmas trading by some big London and provincial stores nowadays often runs to the value of £10,000 a day, as shoppers buy gifts and stock up their larders. Although we may feel that the giving of Christmas presents has become rather too commercialised today, it has a tradition going back nearly 2,000 years, having originated in the gifts which the Wise Men brought to Bethlehem.

There is tradition, too, associated with the Christmas stocking and the custom of putting money in it. The origin of the practice is portrayed in one of the stained-glass windows of Brixham Parish Church, Devonshire.

Novel Variation

The window contains a lovely picture of St. Nicholas, or Santa Claus. According to legend, when he learned that three girls were denied marriage because their father was too poor to provide them with dowries, St. Nicholas brought them a bag of gold as they slept. The picture shows the incident in colourful detail, with the three girls asleep and Santa Claus dropping the bag of money (nowadays represented by our Christmas stockings containing coins) on to their bed.

Last Christmas there was a novel variation of this idea, when Australian fruit growers had small nuggets of gold placed in a number of Christmas puddings which they sent to needy elderly people in England. Each nugget was valued at about £25, and one of them was put in a monster pudding given to the Lord Mayor of London for distribution.

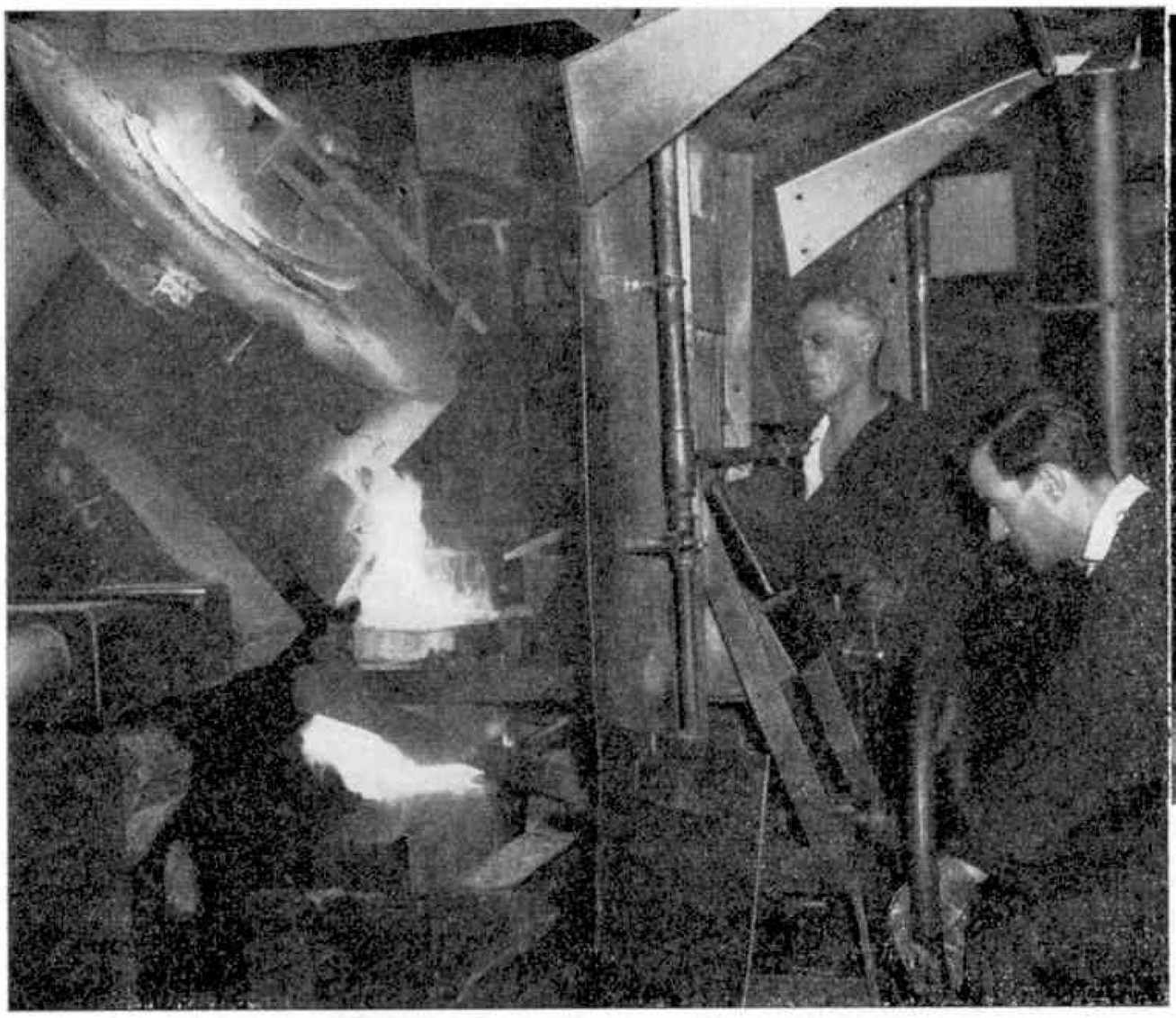
Talking of St. Nicholas and the cash aspect of Christmas, probably the most costly Santa Claus ever existing was a toy figure owned by a Winnipeg jeweller. It was worth £6,000, for it was adorned with the finest jewels from the dealer's stocks. Santa's coat was decorated with rubies, diamonds, and sapphires, while his cap was lined with similar gems, emeralds and pearls. Yet the figure was only eight inches high.

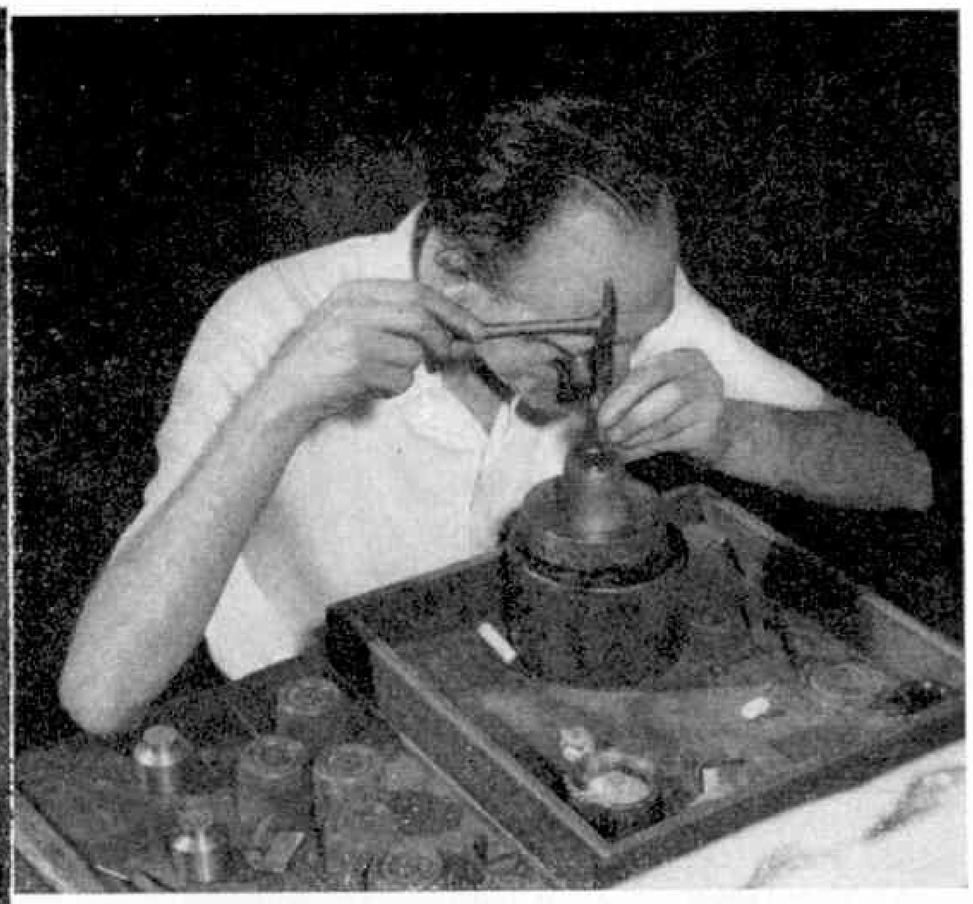
Expensive Gifts

There have been some amazingly expensive Christmas gifts, too. King Charles V of Spain once received a million-dollar present from the sovereign of a neighbouring country. It took the form of an I.O.U. signed by Charles for a loan, and the debt was cancelled in this way. The promissory note was, in fact, contained in a pie placed before the king at a Christmas banquet. He promptly popped the piece of paper into his mouth and swallowed it—becoming the first and only man able to claim that he had eaten a million-dollar Christmas present.

But it was far from being the most valuable of all such gifts. Just before the last world war an American millionaire gave his wife a document on Christmas Day. She opened it—and found that it conferred on her the magnificent New York mansion in which she and her

A touch of Christmas past—and a foretaste of joys to come: Santa Claus joins the kiddies outside a London store. Photograph by courtesy of Selfridges Limited.





Left: Pouring molten coinage alloy into moulds to form bars at the Royal Mint. Above: A stage in the manufacture of the dies which impress the design on the coins. Both these illustrations are British official photographs, Crown Copyright reserved.

husband lived. Even the valuable pictures on the walls went to her. The value of the house alone was put at about £500,000 but some of the works of art included in the gift were said to be beyond price.

Even that great Christmas present was once eclipsed in value. The biggest on record was given by a one-time U.S. Ambassador, Andrew Mellon, in 1935. He gave his two children no less than £13,500,000.

He said he was giving them this wonderful Christmas "box" to teach them how to handle money!

Such fantastic Yuletide gifts are so far from the experience of other people that they seem unreal, and most of us have to be content with the coinage turned out by the Royal Mint, rather than with documents of high value. How is the money we spend at Christmas produced?

It is part of the 300,000,000 coins struck each year for circulation in the United Kingdom. Of these, the number of sixpences far exceeds that of any other coin. Today, just about as many florins and threepenny pieces as pennies are minted, but the number of half-crowns struck is only about one quarter of the number of sixpences.

The output is regulated by the demand, however, and this is why coin collectors will be unable to include in their cabinets any halfpennies minted in 1961. Plenty were in circulation to meet requirements, so none were struck.

From Three Alloys

The coins we spend this Christmas will have been made from three alloys. "Coppers", for instance, are not made entirely of copper, for they contain a little tin and zinc. What we call silver half-crowns, florins, shillings and sixpences are nowadays made of cupro-nickel—usually three parts of copper to one of nickel. Maundy money, for distribution to the poor on Maundy Thursday, however, is still made entirely of silver.

The modern six-sided threepenny pieces are made of nickel-brass containing 79 parts of copper, 20 parts of zinc, and one part of nickel.

The metals reach the Royal Mint—which is situated near the Tower of London—in the form of ingots and big lumps, and after being analysed they go to the melting room to be placed in the correct proportions in huge crucibles. In these they are subjected to a heat of about 1,400 degrees C for nearly two hours, causing the metals to fuse together.

The contents of the crucibles are now poured into narrow moulds, thus producing solid flat bars ready for cold rolling. The process consists of passing the bars between a series of rollers which reduce them finally to long strips of the same thickness as the coins to be produced.

Punching Out the Blanks

Now comes the job of punching out the blank discs for the individual coins. The punching machines have to be fed by hand, but they work at high speed and when the strips of metal have been fed in, the rest of the operation is automatic.

The blanks drop into a chute and fall into a box on the floor, while what is left of the strips is returned to the melting-room, no metal being wasted.

The next process is to soften the blank discs by annealing them, after which they are cleansed with weak acid before being transferred to a machine which raises the rim of each disc slightly. The rim is created by a roller which presses hard against the edges of the blanks as they revolve, and its purpose is to reduce the wear on the finished coins.

The discs are now ready to be stamped with the design which will turn them into coins of the realm, and this is done by a machine which impresses the "head" and "tail" simultaneously. For the operation the disc is held in a collar, and in the case of coins which are to have a milled edge the collar has serrations round the inside, so that these, too, are impressed on the rim as the stamping takes place.

A coinmeter attached to each stamping machine counts the coins as they come out, but before the money goes into circulation it is weighed and random coins are tested to ensure that the cash is of the correct composition.

Every coin is also inspected by being placed on a moving belt and examined as it goes by. Each inspection machine is attended by two men, and every coin is automatically turned over before it reaches the second man, so that both sides can be examined.

All the Same Length

An automatic counting and bagging machine delivers a pre-determined number of coins into linen bags, which are weighed before being tied in readiness for despatch to various banks. As an indication of the meticulous care taken in minting money, it is worth mentioning that the pieces of string used to tie the bags have to be exactly the same length in order to avoid discrepancies.

Incidentally, the Royal Mint is open to the public. Permits to see coins being made can be obtained by applying to the Deputy Master four weeks in advance.

And here is a coin catch which you may try on your friends at Christmas parties. Tell them that 1920 pennies are worth £8. It is true, because 240 pennies are needed to make £1, so to make £8 you would want 1,920 of them.

SPACE NOTES

IMPORTANCE OF COMMUNICATIONS

ALTHOUGH the Russian astronauts who went up in August were close enough to see each other, the fact that they spoke by radio highlights the importance of communications in space. Radio transmitters on Earth send waves both along the ground and up into the air. The ground waves of short-wave stations are very quickly lost but the upward travelling waves lose very little of their power on the journey. In the upper atmosphere are layers of electrons known as the E and F layers, and these have the property of reflecting short waves and sending them back to Earth again. Such reflections between Earth and the ionised layers can continue on round the world and it is by this means that amateurs thousands of miles apart can speak to each other using only a few watts of power.

As the frequency increases so the ability of the ionised layers to reflect becomes worse and the waves escape into space. These very high frequency (VHF) stations work only on "line of sight"—hence the use of large numbers of comparatively low-power VHF and television stations.

By
J. HUMPHRIES,
B.Sc.(Eng.), A.M.I.Mech.E.,
A.F.R.Ae.S.

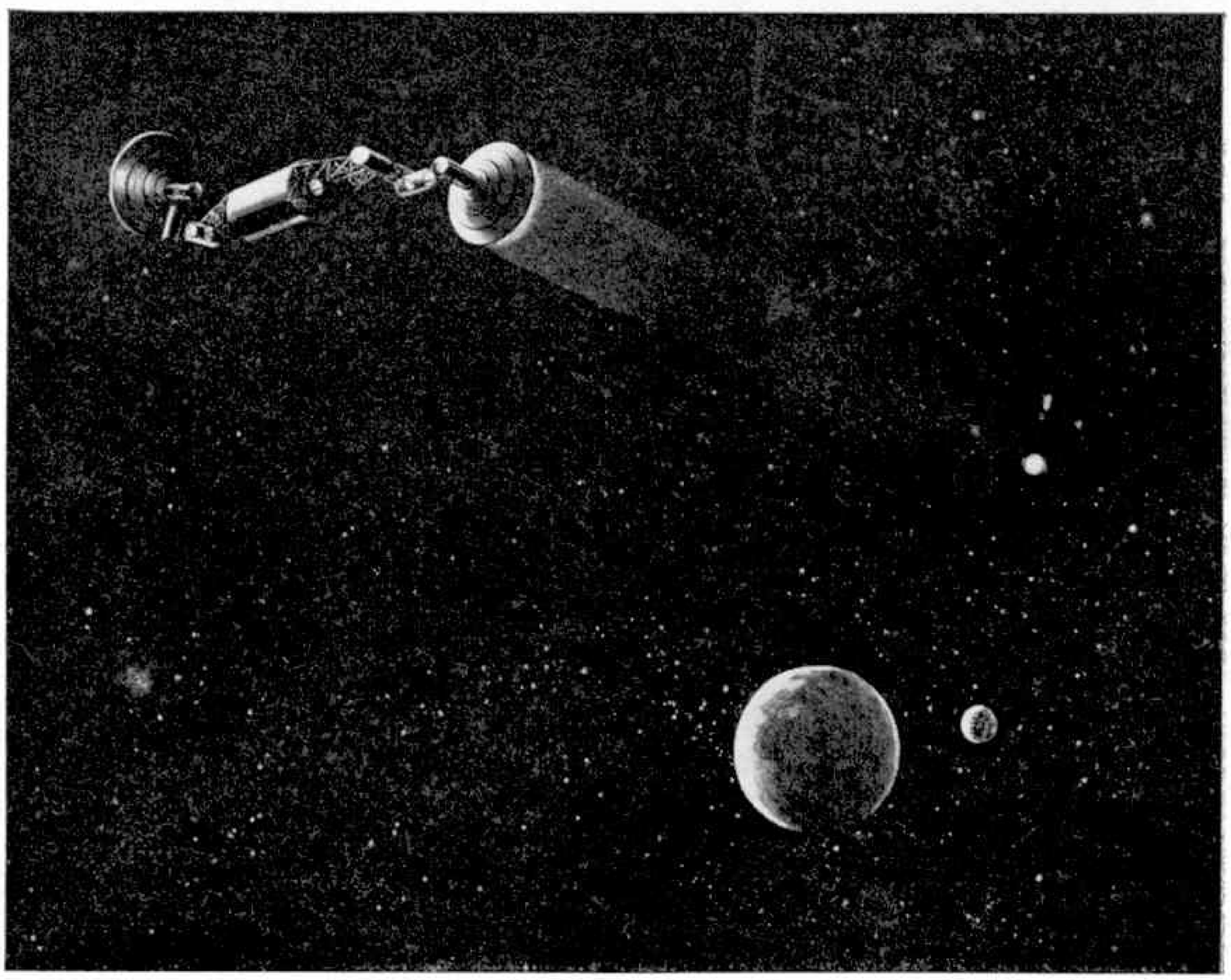
High frequencies have great attractions, a major one being the ability to focus them in the same way that the mirror in a torch focuses light. Thus, all the power can be sent in the required direction enabling highly reliable signals to be transmitted on the power from a flash-light battery.

All space vehicles will operate above the E and F layers except during the final few minutes of return to Earth, and thus the extremely high frequencies are well suited to space. High-quality communications between Earth stations and vehicles in the vicinity of the Moon and nearby planets is practical with present-day equipment, and usable communications to the limits of the solar system are also possible. Essential to space communications are reliability and efficiency. Because of the long flight times of probes into unknown conditions reliability is difficult to achieve—the Russian Venus probe radio failed long before the end of the journey.

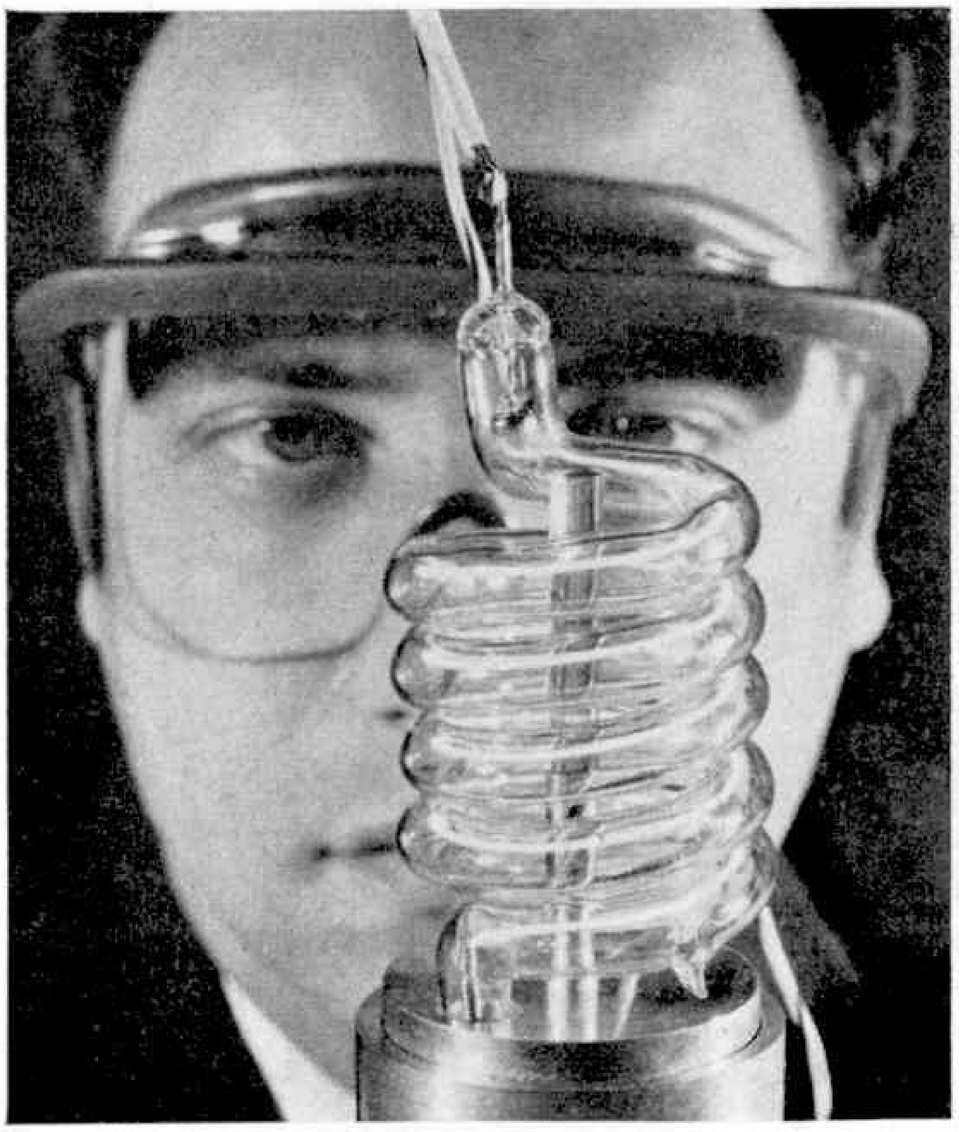
Reliability can be best achieved by running all equipment well under its rated power and by providing alternative circuits in case of failures. Efficiency can be achieved by careful design of transmitters and receivers but most of all by the use of directional aerials. Ground stations can use the best equipment, regardless of weight, with very large aerials. In order to use directional aerials on space vehicles, the vehicles themselves must be stabilised so that the aerial can be kept pointing in the right direction.

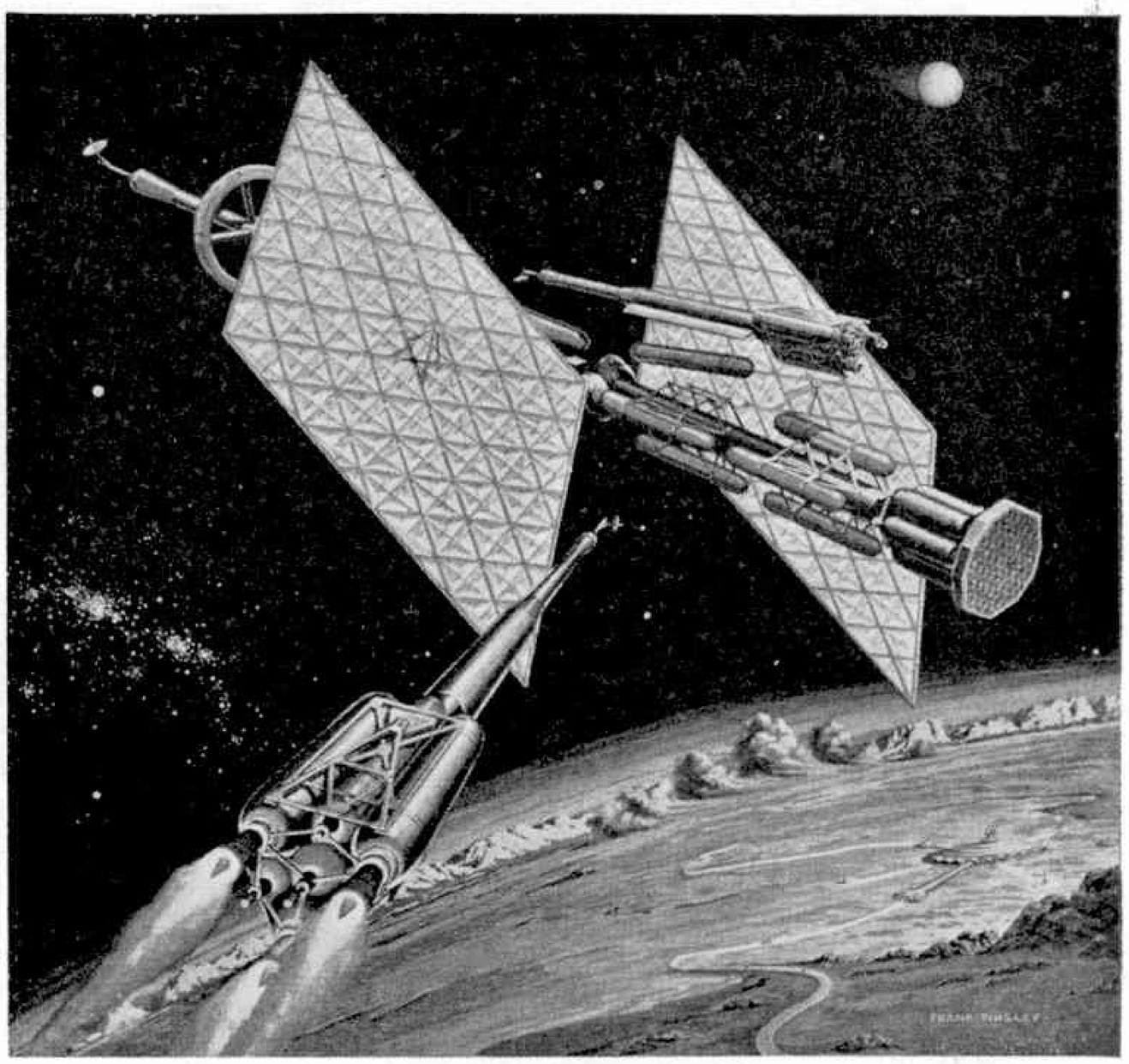
Radio waves are not the only means of signalling in space, however. Because of the perpetual presence of the Sun and the absence of obscuring clouds a reflected light signal can be continuously seen over extreme distances. A device known as SOCOM, being developed by Electro-Optical Systems, can provide high-speed communication over Interplanetary distances without the need for heavy auxiliary power systems and other complex radio equipment. The SOCOM transmitter collects the Sun's rays in a dish-shaped mirror one foot or more in diameter. The light is passed into a modulator which chops the beam into coded segments and passes it into a second mirror system which transmits the coded beam through space to the receiver. This also consists of a mirror system. The light is caught by a large receiving mirror; a detector at the focal point of the mirror transforms the light into an electrical signal and it is read out with conventional equipment.

A more modern device with potentialities for signalling using light waves is the ruby laser (Fig. 2). The conventional methods of light production produce light over a comparatively wide part of the spectrum, randomly distributed in direction. The ruby laser consists of a specially-cut ruby surrounded by a high-power discharge lamp. Atoms exist in the ruby in various states of excitation. When the more highly excited atoms lose energy they do so in the form of light in a very narrow frequency range. Thus the flash from the discharge lamp stimulates the ruby into producing a high-power, short-duration narrow-angle pulse of light at one frequency. The angle of the beam is



The SOCOM communications system picks up light in the left-hand mirror, modulates it and transmits via the right-hand mirror. (Picture by courtesy of Electro Optical Systems, Inc.)





The ruby laser (above) consists simply of a flash-tube surrounding a specially-cut ruby. (Photograph: Hughes Aircraft Co.) Right: This Mars fleet uses rocket boosted ferries and solar powered inter-orbital vehicles. (Illustration by courtesy of American Bosch Arma Corp. and Frank Tinsley.)

so small that if aimed at the Moon (250,000 miles away) it would illuminate an area less than ten miles wide. By contrast a searchlight, if its light could reach the Moon, would spread over 25,000 miles. Such a system is ideal for use in space, where there is no atmosphere to scatter the light, and its use both for communication and radar is likely to develop rapidly in the next few years.

FRICTION IN SPACE

Calculating the force required to move one surface over another is a very easy matter—or is it? Although friction has been under study for an extremely long period there are still opposing views as to what causes it. For a long time it was held that friction was caused by the "bumps" on two surfaces riding over each other. That this is true of very rough surfaces can readily be seen but an additional theory has been taking hold in recent years. According to this theory two surfaces in contact only touch at a very few places and where touching occurs, the two faces actually join together. Friction is caused by the breaking of these joints as one surface is pushed over the other. One would expect anything coming between the surfaces, such as oil, to prevent the joining together and reduce the friction. Going even further, if one could remove all contamination from two surfaces and press them hard together a great number of joints would form. Indeed, this happens so well that a technique of joining metals together in a vacuum has been developed during the past few years.

But what has been turned to advantage on Earth threatens to be a nuisance in space. It has been proved that gears and bearings that behave well on Earth do not do so in a vacuum. The use of oil is not necessarily the answer, since in free fall it is difficult to make the oil go where it is wanted, and in a vacuum it evaporates quickly. Some of the newer solid lubricants may solve this problem, but more fundamental work on the causes of friction is needed.

MARS SUPPLY FLEET

Our third picture this month shows yet more of the odd shapes that may one day be in space. When Martian colonies are first set up they will depend for their supplies on a shuttle fleet from Earth, which will consist of two basic vehicle types. The large ships, with the rectangular solar reflectors shown on the drawing will be the long-range backbone of the fleet. Assembled in orbit from prefabricated sections rocketed up from Earth, these high-capacity carriers will have a low-thrust electro-particle drive and their operating current will come from thermionic converters heated by the concentrated rays of the reflectors.

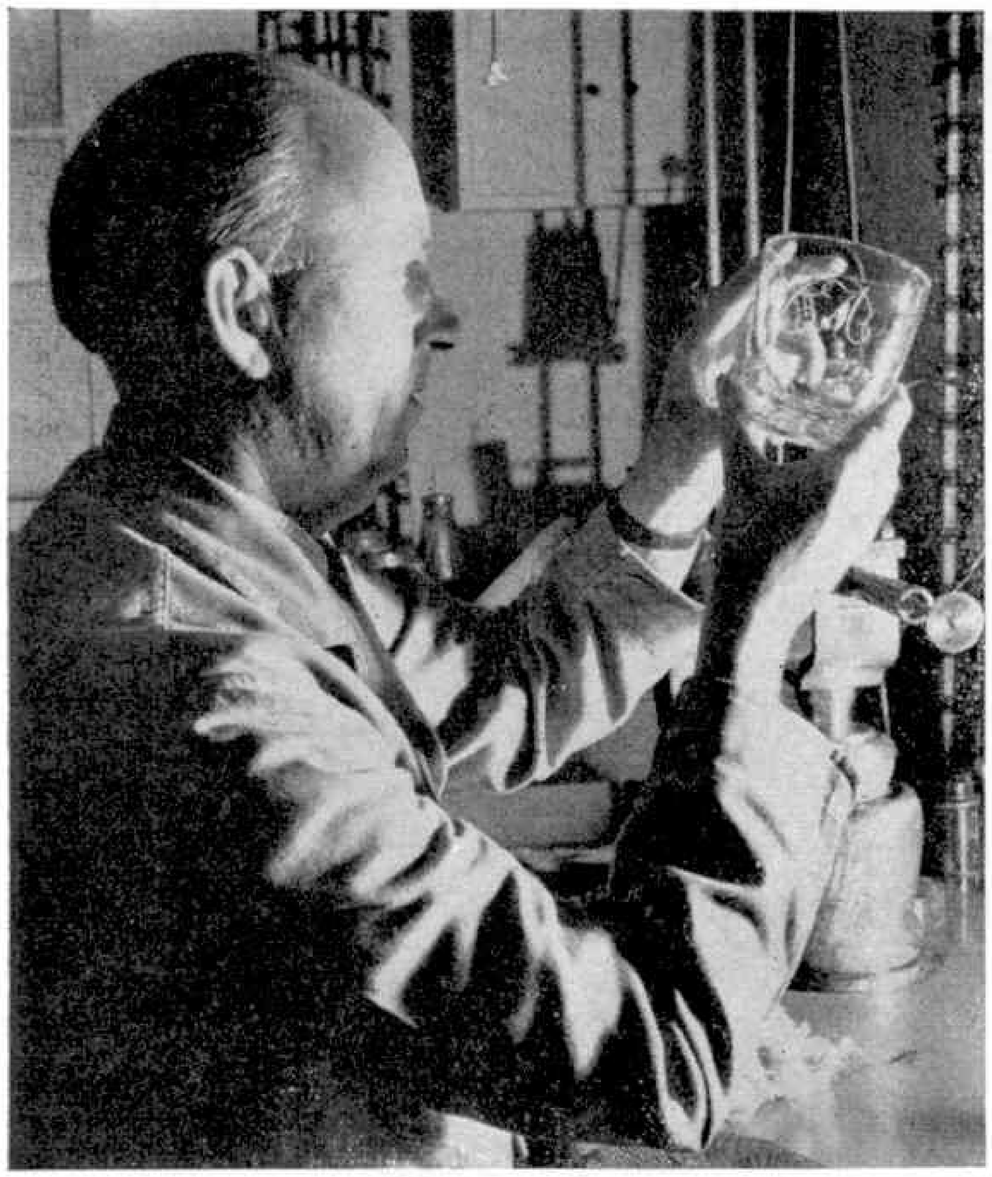
These Solar ships will be loaded and unloaded at both ends of the voyage by ferry rockets, the ferries being designed to carry long cargo containers within a bay just forward of their engines. In the nose of each ferry rocket will be the passenger and operating section with a universally-mounted spherical guidance compartment. This guidance unit will be fitted with radar, optical telescope and full astrogational equipment.

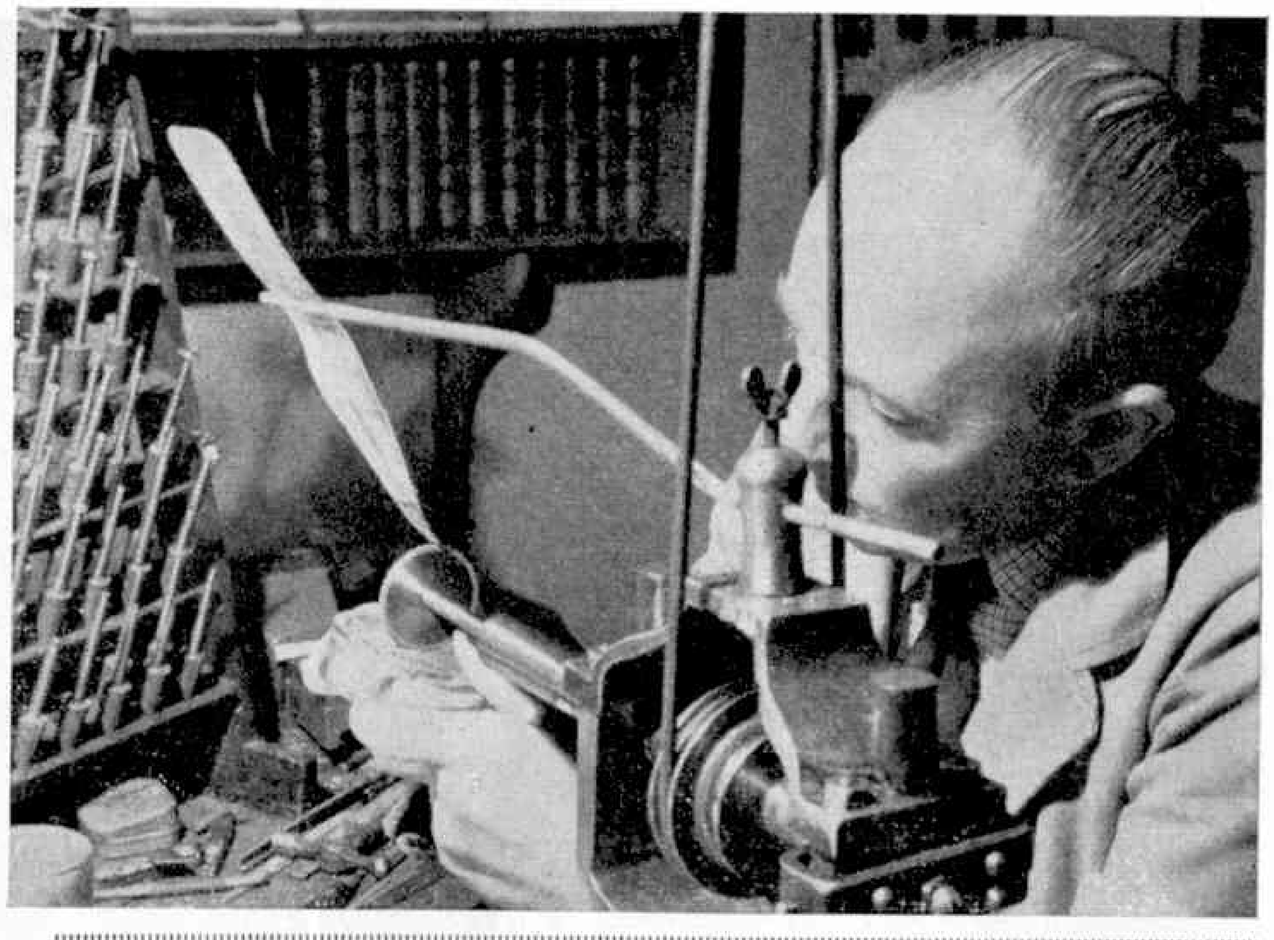
The Mars supply fleet will complete each mission in one to two Earth years, depending on whether or not the Solar ships are equipped with auxiliary boosters for extra initial speed.

Railway Book Review

In **The Caledonian Railway** by O. S. Nock, B.Sc. (Ian Allan, 30/–) we have another welcome history of a pre-group railway. Here the author traces the history of the proud and enterprising Scottish main line that formed part of the West Coast Royal Mail route from Carlisle to Glasgow and Edinburgh, Perth and Aberdeen, and which served the Clyde Coast by train and steamer, and penetrated into the Western Highlands.

As there was fierce rivalry between those promoting the respective rival routes, by Nithsdale and by Annandale, from the Border to Glasgow a considerable amount of attention is given to the affairs and developments of the early days. With the consolidation of the system and the completion of the line via Callander to Oban, the Caledonian practically reached its ultimate development as a main line, but an important additional project brought into being late in the nineteenth century was the completion of the Glasgow Central Railway, much of it underground. Apart from this and other engineering works of considerable magnitude, the author draws special attention to the bold station re-building schemes. Locomotives and train services receive a good deal of attention and many details are given of actual performances.





AN ARTIST WITH GLASS

HAROLD GORDON is no ordinary artist for he works with glass, engraving the most intricate and attractive designs—"wrong way round", too. You see, he has to work "upside down", as it were, because this is the only way he can see what he is doing.

For some designs he carries out a sketch or drawing first, then transfers it to the glass object which is to receive the engraving. At other times he prefers to engrave direct without any tracing, and this, so he says, is when he produces some of his best work.

PICTORIAL FEATURE BY JOHN TOPHAM

His studio is at a small cottage in Forres, called Greywalls Studio. It is from here that he produces his engraved "pictures" on glass and conducts his business. He buys fine crystal glasses of all shapes and sizes from Holland, Edinburgh and London.

Mr. Gordon has supplied glassware to Royalty; he created wedding presents for the Duke of Kent's marriage and his exhibits have been presented to members of the Royal Family at exhibitions or have been purchased by them. Notabilities visiting this country who have been presented with glassware created by Mr. Gordon include Mr. Kruschev, the Soviet Premier. Leading figures in America have also been presented with his work by notabilities in Britain. Like most artists who are at the top of their craft, Mr. Gordon has a long waiting list of clients demanding his work. He began his present career in 1947 after attending the College of Art in Edinburgh.

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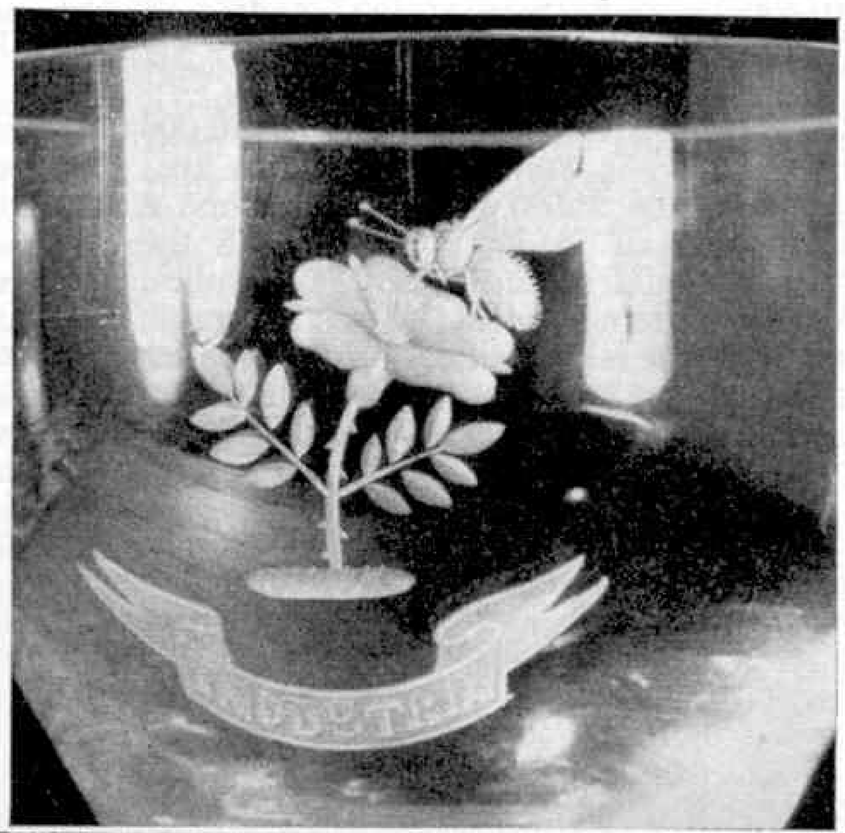


Delicate work. Mr. Harold Gordon (top left picture) inspects a tumbler after having engraved it in intricate manner. (Top right) The artist works quite simply; this is his own method, using a converted lathe. Lubricant and grinding paste are supplied by the tongue reaching down to touch the top of the grinding wheel. On the left of the picture are his cutting tools. (Centre right) A close-up of some intricate engraving. (Bottom right) Three examples of Mr. Gordon's superb artistry.

PLAN TO REVIVE A RAILWAY

WHITE COLLAR VOLUNTEERS

HOPES are running high among commuters at Westerham, Kent, that by next summer they will be running their own railway line—the Westerham Valley Light Railway.

Gangs of white-collared workers are already spending their weekends putting Westerham Station back into trim. British Railways are asking £53,000 for the five-mile section of single track line between Westerham and Dunton Green, the junction with the main London line.

This article is reprinted from "The Evening Standard", 1st August, 1962.

The 500-strong Westerham Branch Railway Passengers' Association is highly optimistic about the outcome. Most of the members are now forced to travel by bus or car about seven miles to Sevenoaks to catch their trains—a result of the economy close-down of their local line.

Two locomotives

The plan to buy two locomotives—diesel and steam, taking it in turns to pull up to a maximum of five carriages. The association has already obtained the lease of Westerham Station.

"This is our terminus and we are prepared to roll up our sleeves and get it ship-shape", say the members.

The station was damaged by vandals soon after the line closed in October last year. Now there are never less than a dozen at a time of white-collar "gangers" working at weekends with their own equipment.

They include a banker, economist, civil servants, lawyer, stockbroker, schoolmaster, shopkeeper—and a number of employees of British Railways.

Optimistic

Jobs they are tackling include grass cutting with sickles and scythes, weeding the line, sweeping up and burying debris, washing and scraping paintwork and greasing the points.

Schoolchildren frequently join their fathers in the voluntary tasks. The chairman of the association is economist Mr. William G. Gray. He works in old Army tropical kit.

He said, "It is a nice contrast to office work. We are all railway enthusiasts. We are hoping to get water and light laid on as soon as we can so that we can use the station as our meeting place. We are hoping that the vandalism will stop when the station is occupied and made secure."

* * * *

Civil servant Mr. Denis Pope said, "We are highly optimistic and hope to open by next summer. We hope to get the figure of £53,000 down still further and we are making it clear that we intend to run it solely as a railway and not as potential land developers."

Volunteers at work with sickles help to clear Westerham Station in the drive to re-open the Westerham Valley Light Railway.

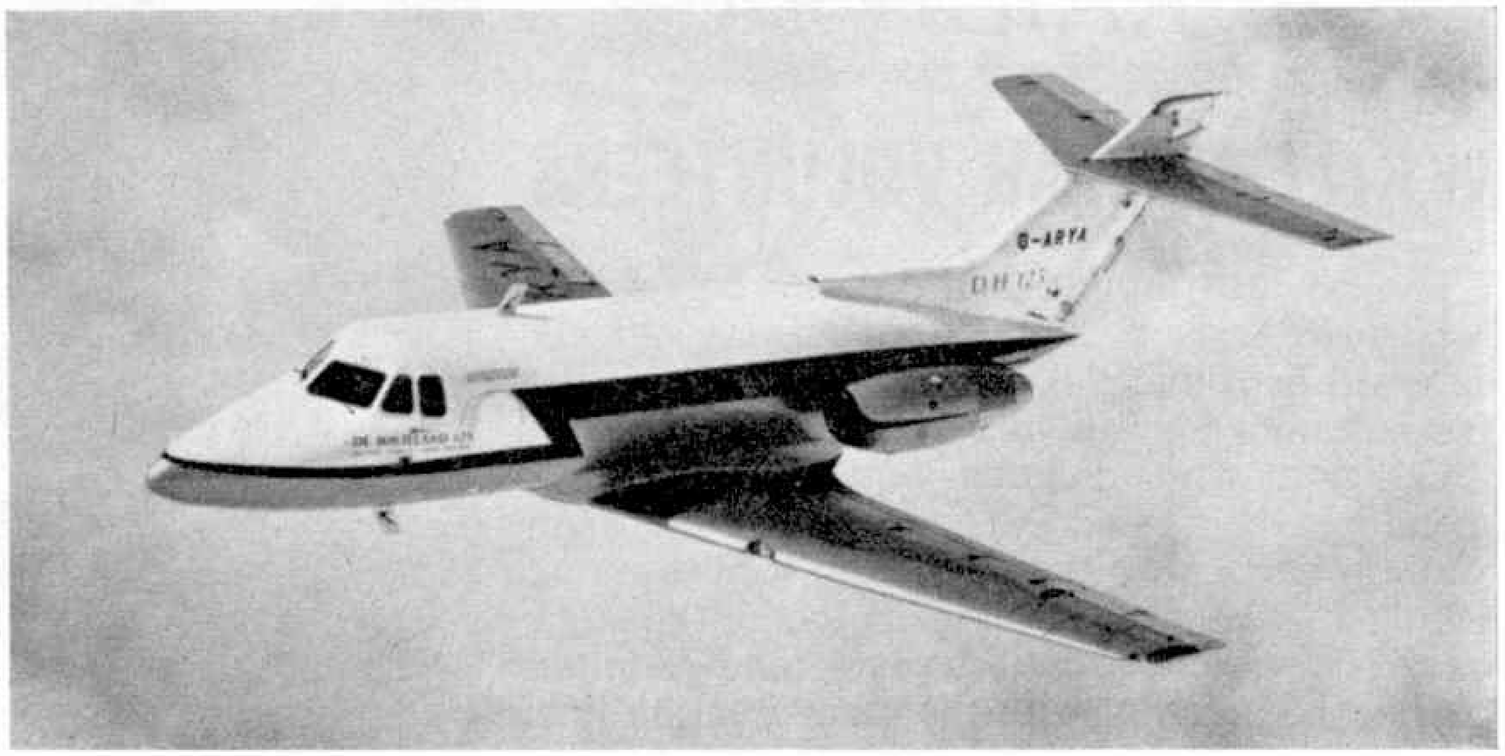
Limited company

Any difficulty about raising the money? "No. We shall form a limited private company with investors in the company and we are inclined to believe that something in the region of £26,500 can quickly be raised," said Mr. Pope.

Officials are also excited about a rumour that gravel works between Chevening and Dunton Green are to be handed over to the public in about two years' time.

"If that happens about 90 acres of water will become a sailing mecca and bring extra traffic to us", they say.

BABY BUSINESS-PLANE WAS AN AIR SHOW STAR



One of the outstanding successes at Farnborough this year was the little de Havilland D.H.125 which can carry twelve people at 500 m.p.h. Here this smart little 'plane is seen in the air.

THIS year's S.B.A.C. Flying Display and Exhibition, at Farnborough, in September, left little doubt that Britain's aircraft industry can still design and build aeroplanes second to none in the world.

Some people believe that it should produce only small aeroplanes and leave the big stuff to the Americans. After seeing the mighty 135-seat Vickers VC10 airliner, they may change their minds. Skilled design and the power of four Rolls-Royce Conway turbofans enable it to take off and land in much shorter distances than the big jets now in service. There is no more important aid to safer flying than this.

Air News

BY JOHN W. R. TAYLOR

One of the keys to the VC10's fine performance is that its engines are mounted on the sides of the rear fuselage, in the fashion started by the French Caravelle. This leaves the wing free of engine air intakes and pods, so that it can get on with the job of providing as much lift as possible.

Another new British transport aircraft with rear-mounted jet-engines, but at the other end of the size scale, is the little de Havilland D.H.125 business-plane, which was one of the real hits of this year's display. Intended to replace the best-selling Dove, it carries up to twelve people in great comfort at 500 m.p.h. and can go almost anywhere, even to quite small grass airfields.

One big attraction of the D.H.125 is that there is enough room inside its cabin for most people to walk upright. This has been made possible by putting the wing under the fuselage, instead of letting the spars take up valuable cabin space. The engines are Bristol Siddeley Vipers of 3,000 lb. thrust each.

Already de Havilland are building an initial batch of 30 D.H.125s, and hope to begin delivering these within a year. Nor will they be used only by businessmen in a hurry, for the R.A.F. has ordered twenty-two, for use as navigation trainers to replace the veteran Varsities and other types now used for this work.

MOST EXCITING

The most exciting aeroplane at Farnborough this year was probably the Bristol 188, because it should prove to be the fastest aeroplane in the world able to take off and land on its own wheels. Built entirely of stainless steel, to withstand the great temperatures created by flight at up to three times the speed of sound, it will help to pave the way for the first supersonic airliners.

Each of its Bristol Siddeley Gyron Junior turbojets develops 14,000 lb. of thrust when its reheat is switched on. This means that when the aircraft flies at high speed, at great altitudes, the two engines will give a combined output of about 180,000 h.p. This is rather more than the power produced by the marine engines which propel that famous liner the *Queen Mary*.

FILMS IN FLIGHT

Several airlines are now putting on film shows in flight for passengers in the first-class cabins of their airliners, but Pakistan International Airlines thought they were safe in claiming to be the first to invite both first class-and economy-class travellers to mid-air movies.

Alas, nothing is more dangerous than to claim a "first". Within days a number of people who worked for the former British South American Airways Corporation pointed out that this airline had been showing films on board its Avro Yorks across the South Atlantic, with no class divisions, as far back as 1947.

Judging from the kind of pictures I get on my TV, they were probably the same films.

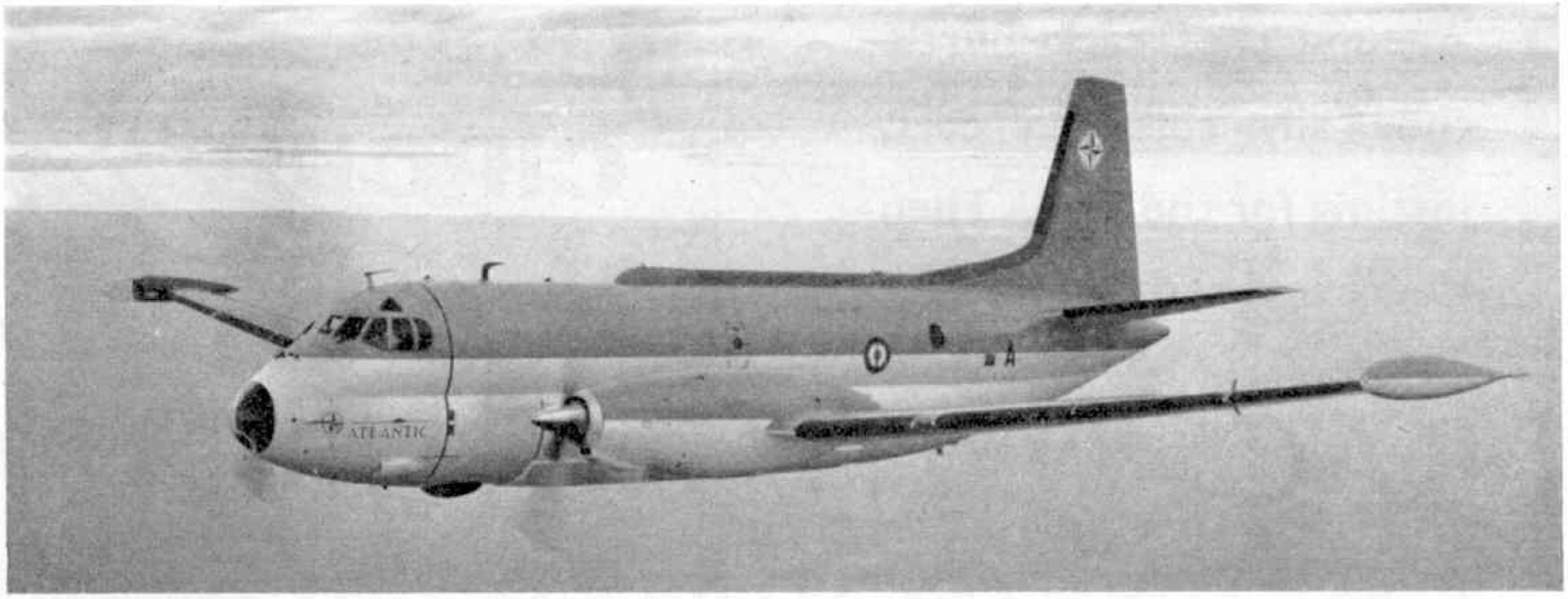
SIX-NATION AEROPLANE

Talking of the Atlantic reminded me of the aeroplane shown in the top illustration on the next page. Named the Breguet Atlantic, it is one of the most remarkable machines in the air, as its component parts were designed and built in no fewer than six different countries and then put together by Breguet in France.

The reason for such a strange method of producing an aeroplane is that the Atlantic is intended for use as an anti-submarine patrol bomber by the member countries of NATO. It was felt that the different nations would be far more likely to buy it if their own industries had a share in creating it.

After NATO had described the sort of aeroplane they wanted, 25 designs were drawn up by companies in several countries. These were studied carefully by a panel of experts who finally narrowed the choice to two designs. One of these was the Atlantic, the other had been submitted by the British Avro Company. Unfortunately, the R.A.F. announced that it did not need a replacement for its piston-engined Shackleton anti-submarine aircraft, so Avro withdrew from the competition and the Breguet aircraft was ordered in December 1959.

The prototype flew less than two years later, on October 21, 1961. Its centre wing



Many nations had a hand in making the Breguet Atlantic, pictured on the right.

and engine nacelles had been designed and built in Holland by Fokker, its rear fuselage and tail unit in Germany by Dornier, other fuselage components by three Belgian firms, its outer wings and undercarriage in France by Sud-Aviation and Hispano respectively, leaving Breguet responsible for the main fuselage and final assembly of the whole.

The Rolls-Royce Tyne engines of the prototype were supplied from England, and much of the electronic equipment from America, but even these items will be manufactured on the Continent for production Atlantics. At present only 47 have been ordered, by the French and German Governments, but other countries will almost certainly buy Atlantics to replace their present Neptunes and Trackers. Belatedly, the R.A.F. is also reported to be interested in a version with two underwing jet engines in addition to the Tynes, for higher performance.

The standard Atlantic spans 124 feet 10 inches, weighs just over 40 tons and can stay on patrol for eighteen hours at a speed of 195 m.p.h. It carries a crew of twelve.

TASTY FREIGHT

To fly across the Atlantic in an aeroplane filled with chocolate is the kind of experience that usually happens only in the dreams of small boys and girls, but B.O.A.C. recently had the job of flying no fewer than eighteen tons of chocolate from Geneva to Port of Spain, Trinidad.

The Government of Trinidad bought the chocolate from the Nestlés factory in Switzerland to give away as a present to all the children of the island on August 31, when it became an independent country. It was the biggest cargo load B.O.A.C. has ever carried from Switzerland.

FISHING BY HELICOPTER

For the past three years, Autair Helicopter Services of Montreal have been paid by the Canadian Government to go fishing by helicopter in the Arctic waters. The fish on the end of their line are, however, not the ordinary type. Each consists of a metal body, with side fins, suspended under a float that keeps the "fish" at a constant depth of ten feet below water. Packed inside the body is nearly 90 lb. of electronic equipment to measure the depth of water under the "fish."

Autair pilots tow the device behind Bell 47G–2A helicopters, on the end of a 100-ft. cable, at a speed of about 30 m.p.h. Recording equipment charts the profile of the ocean floor and this information is then used to produce maps showing precisely which parts of Canada's Polar Shelf have sufficient depth of water to be safe for shipping.

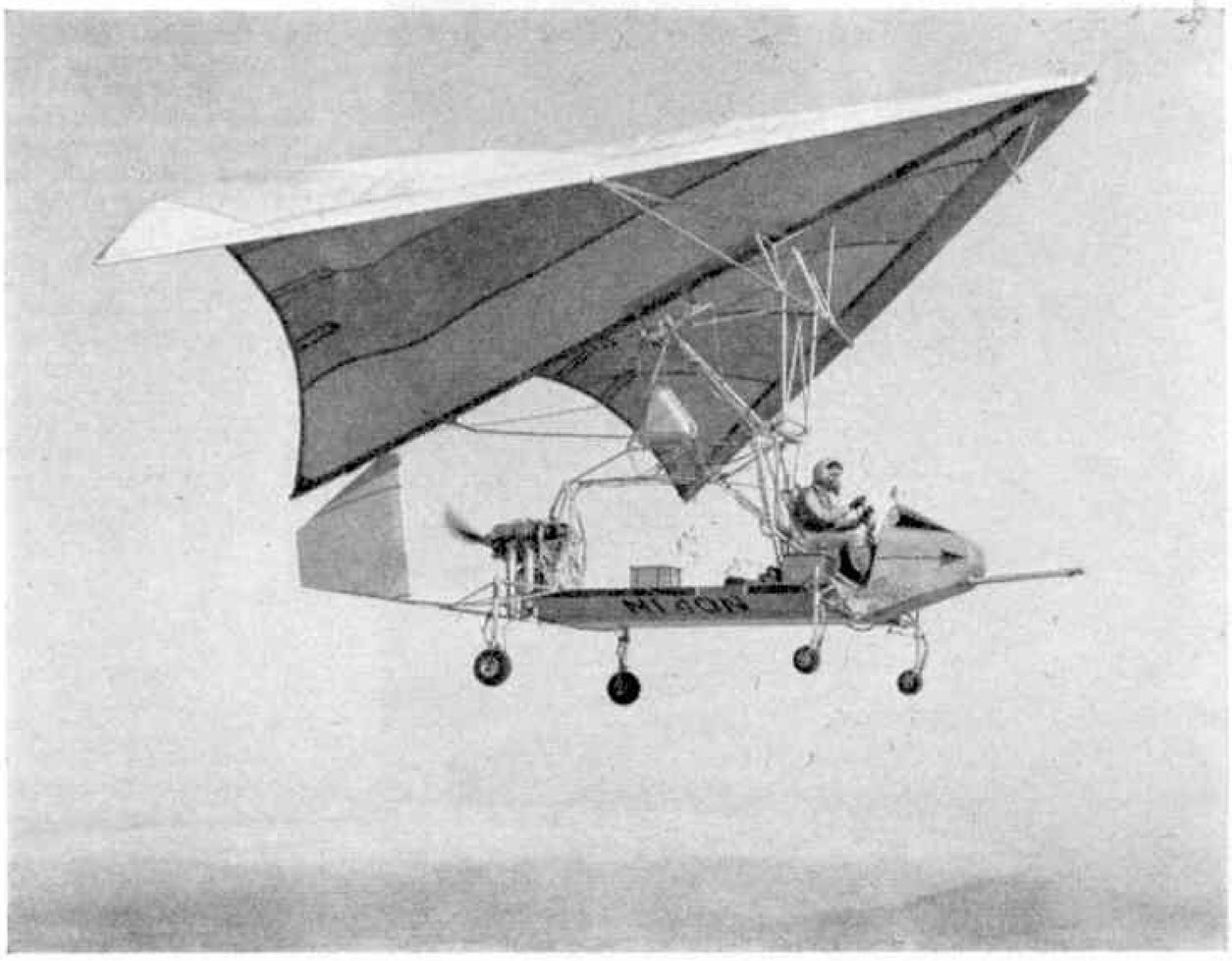
KITES REPLACE WINGS

Although the aircraft illustrated at the foot of this page looks little more than a platform slung under a triangular kite, it is flight testing one of the most promising new ideas in American aviation.

Known as a Flex-Wing, the "kite" consists of a coated nylon web attached to a central keel and two leading-edges which can be either rigid or inflatable. It gives plenty of lift yet, when not in use, can be folded up into a very small package. No control surfaces are needed, as the pilot can change direction simply by tilting the wing, in much the same way as a helicopter pilot tilts the rotor of his aircraft.

The aircraft illustrated was built as simply as possible by the Ryan Aeronautical Company to prove that the Flex-Wing is practicable. It is propelled by a 100 h.p. Continental engine, driving a pusher propeller, and weighs only 1,100 lb. complete with pilot. Tests have shown that it can take off in under 500 feet and has a forward speed of 60 m.p.h. It can fly safely at less than half that speed.

A big advantage of the Flex-Wing is that it will unfold more quickly than a parachute. As it weighs so little, it could be carried folded by vertical take-off aircraft and helicopters and opened out to lower them safely to the ground in an emergency. There are many other possible applications, and Flex-Wings may be used to recover the booster stages of America's future big space launching rockets, so that they can be used again at great saving in cost.



From America comes this fascinating aircraft, the Ryan Flex-Wing, which can take off in less than 500 feet and fly safely at under 30 m.p.h.

Around the track hurtle the gaily-coloured cars, jostling for the lead. Then the chequered flag falls . . .

CIRCUIT 24

RACE WITH A THRILL AT EVERY CORNER

ALTHOUGH he is a very busy man whose duties take him to many parts of the Continent Mr. Jerry Ames, who contributes the "Road and Track" feature to the "Meccano Magazine", and who also writes motor racing notes for many leading newspapers, responded with alacrity when I invited him to visit the headquarters of Meccano Limited and try out the fine new race game "Circuit 24".

By THE EDITOR

I was foolhardy enough to challenge Mr. Ames to a race which he won after many thrills and spills—fortunately involving the model cars and not the two protagonists—over six laps of the tricky, exhilarating "test" circuit. Indeed, having demonstrated his skill with one car he was anxious to see what would happen with "dual control" and so another race was run in which he and I handled two cars each, with a quite astonishing degree of success.

It was at the end of this race that Mr. Ames discovered a truth about "Circuit 24"; it is that while at the end of an actual race, such as he himself has taken part in, a driver is glad to get his feet up for a while, with a model race track such as "Circuit 24" the feeling is to race again and again, seeking all the time to become more perfect at beating hazards and forcing the car through corners and snake-like chicanes. I felt that, having taken part in two events, I ought to seek honourable retirement and so it was that Mr. Ames came to challenge other members of the Meccano Staff. Among them was the Sales Director, Mr. Norman Craig, who can be seen in one of our pictures cheering on his car in a fast and furious race in which victory again went to the *M.M.'s* Motor Racing Correspondent.

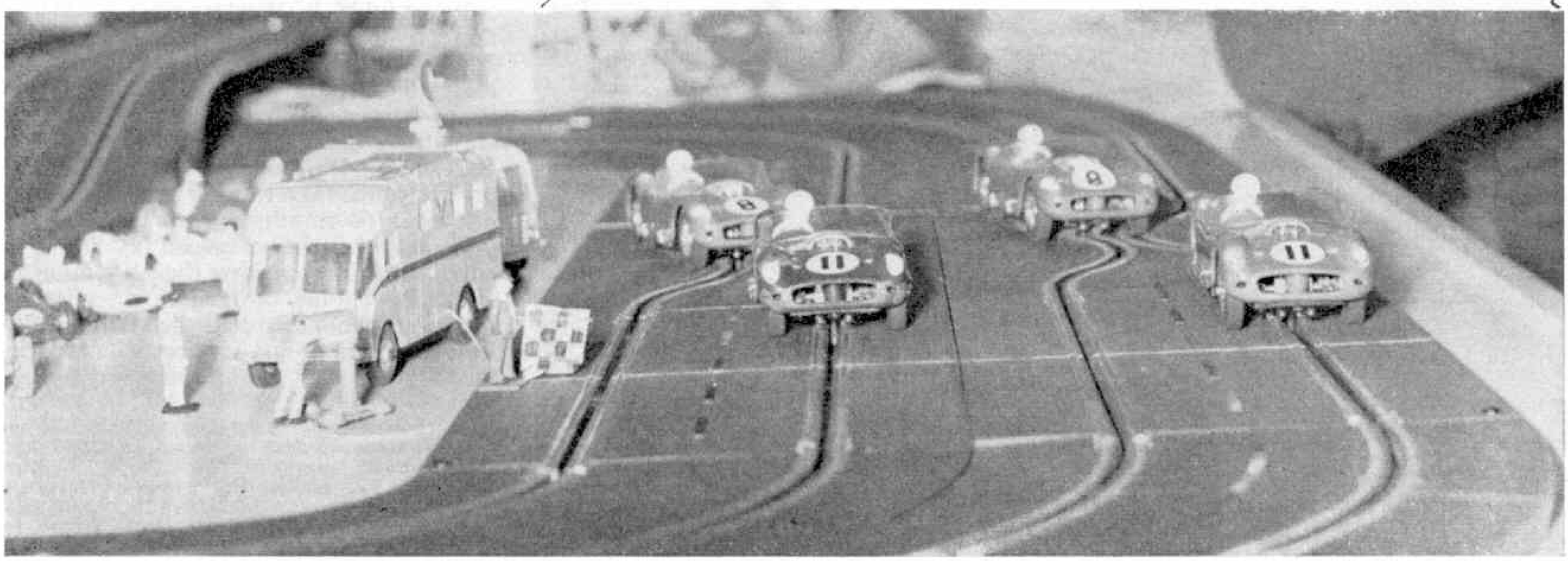
In a thrilling race in the Display Room at the Headquarters of Meccano Limited "Circuit 24" cars come up to a close finish. In the picture, left to right, are: Mr. Jerry Ames, "M.M." Motoring Correspondent, Miss Marie Judge and Miss Carol Doherty, of the staff of Meccano Limited, and Mr. G. E. Pierce, Commercial Manager, Meccano Limited.

"Circuit 24" becomes enthralling when you get a grip on things. Mr. Norman Craig, Sales Director of Meccano Limited (top left) puts pressure on the hand control grip as he battles with Mr. Jerry Ames on the last lap of an exhilarating contest. Above: Mr. Ames (foreground) and the Editor of the "M.M." try their skill at handling two cars each. Below: The chequered flag is up and it is anybody's guess as to who is the winner.

We found, as the events proceeded, that while "Circuit 24" in itself has an infectious pull on those taking part, the addition of appropriate items around the track gives an added air of realism. From the photograph at the bottom of the page you will see how Dinky Toys models were pressed into use to create the atmosphere of the racing circuit.

Deciding that this was not simply a game for the male element we then invited two lady members of the staff to visit the "track" and take part in a four-car race. From their expressions of delight, and from the way in which they handled the speeding cars, it was quite obvious that in homes where "Circuit 24" finds a place within the next few months Mum and the daughter of the family are going to have just as good a time as Dad and Junior. On the roads themselves, unkind things are sometimes said about the woman driver. Most are disproved by fact, but in any case with an indoor race track such as "Circuit 24" the comments about women at the wheel will have to be suppressed. With "Circuit 24" we are going to come across a host of incipient Pat Moss's who may well make some members of the stronger sex hide their heads in shame.

END OF AN EXCITING BATTLE



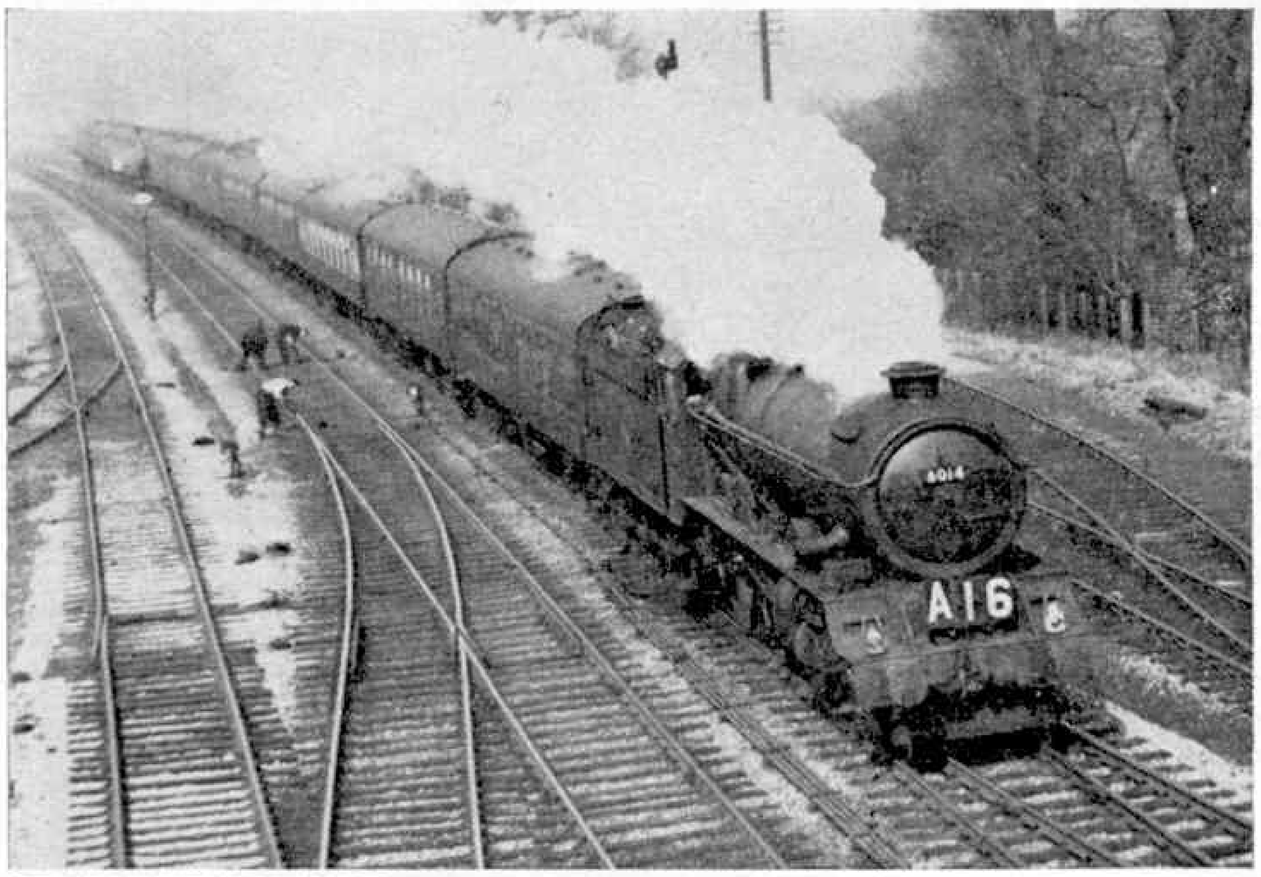
RAILWAY NOTES

Contributed by R. A. H. Weight

ANOTHER BIG SPEED-UP

SWEEPING accelerations were effected last June along the main East Coast, London–Endinburgh line, and in Scotland, together with a speed-up on the London–Norwich route. Greatly improved services also resulted from extended electrification in Kent, on the London, Tilbury and Southend line, and elsewhere, which I have summarised in recent issues.

The autumn–winter timetables introduced, in September, further striking improvements and quickest-ever express schedules to the W.R. Paddington – Birmingham – Shrewsbury route, and, on a more extended scale, to and from London (St. Pancras) and Leicester–Nottingham –Sheffield–Manchester by London Midland. This has resulted in considerable benefits to important intermediate stations' services and has brought into being some very fast start-to-stop timings.



No. 6014 "King Henry VII" (left) on an up W.R. Birmingham express. *M.M.* reader C. Stevens took this picture before dieselisation on this route.

Traversing both regions along the important north to west trunk line which connects Derby and Birmingham (New Street) with Gloucester and Bristol, and which carries through expresses serving Newcastle, Yorkshire, Nottingham, Cardiff, Devon, etc., more and faster locomotive hauled or diesel trains are now including non-stop runs between Bristol and Birmingham in less than two hours by *The Devonian*. *The Cornishman*, diverted from its previous Wolverhampton–Gloucester route via Birmingham (Snow Hill) and Stratford-upon-Avon, now operates to and from Sheffield, gaining 50 minutes on its journey from Penzance to Birmingham (New Street), and travelling from that point via Derby.

Powerful W.R. Western class 2,700 h.p. diesel-hydraulic, and L.M.R. Peak type 2,500 h.p. diesel-electric, locomotives are rostered to haul most of the principal trains concerned in this latest enterprise.

Notable are the one or two non-stop Paddington–Birmingham (Snow Hill) expresses which take 1 hr. 50 min., averaging just over 60 m.p.h. overall on a rather difficult route; the seventeen fast trains in either direction covering the 110½ miles in about two hours or less, in many cases including two stops, and the six Paddington–Leamington Spa services which cover the 87¼ miles in under one and a half

In the bottom picture, by J. A. Fleming, an up Wolverhampton express is hauled by 2,700 h.p. diesel-hydraulic locomotive No. D 1005 "Western Venturer". Our heading block, from a photograph by F. T. Lane, shows a 9F 2–10–0 No. 92046 on a train of iron ore from Bidston Dock, Wirral, to Hawarden Bridge.

hours. Places further north also enjoy quicker services to and from London.

Some of the many accelerated Midland line times are perhaps even more impressive. Quite a selection of expresses each way averaging about 60 m.p.h. or more—some including a stop—are booked to cover the 99 miles over considerable gradients between London (St. Pancras) and Leicester, with quickest ordinary train allowances of no more than 91–94 minutes. Against that, the luxurious diesel *Midland Pullman* on its midday run is allowed only 82 minutes from London to Leicester and 84 minutes when southbound, requiring mean speeds of 72½ (the fastest in Britain for a run of over 50 miles) and 71¼ m.p.h. respectively. With a call also at Loughborough, its journeys from St. Pancras to Nottingham, and back, are completed in less than two hours!

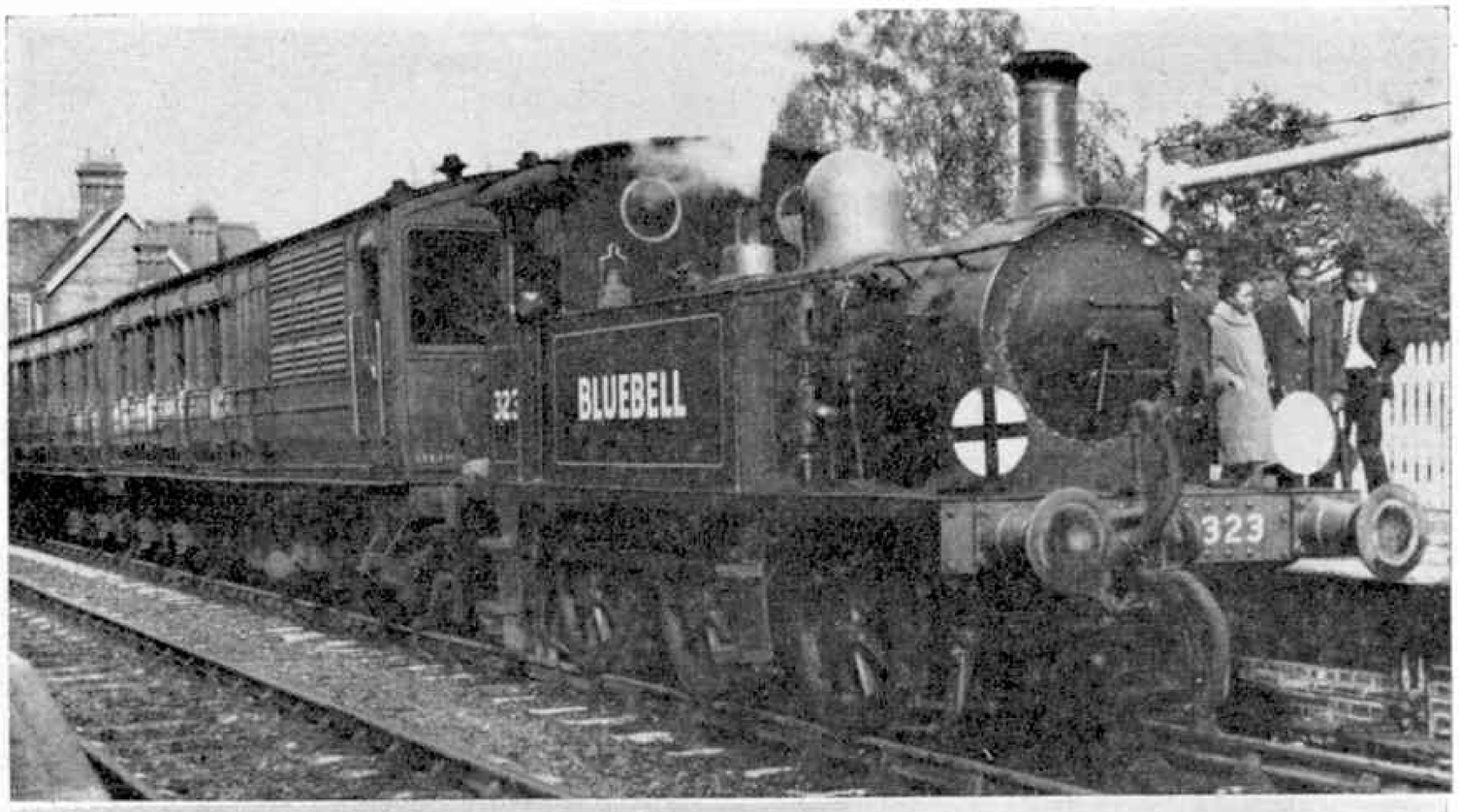
The best London–Nottingham services using the Melton Mowbray route, three miles less than via Leicester, average only just over two hours either way, with a 118-minute timing northbound for the 123½ miles, without a stop. St. Pancras–Sheffield principal train times are about three hours; between St. Pancras and Manchester Central, the fastest allowance has been cut to 3 hr. 35 min., with an average of about 3¾ hours. Seven extra expresses are being run in both directions on ordinary weekdays, starting usually at 25 minutes past the hour from Manchester and St. Pancras, as a number of the Manchester–London (Euston) services have been withdrawn while rebuilding is in progress at Euston and other pre-electrification work is carried out along this busy main line.

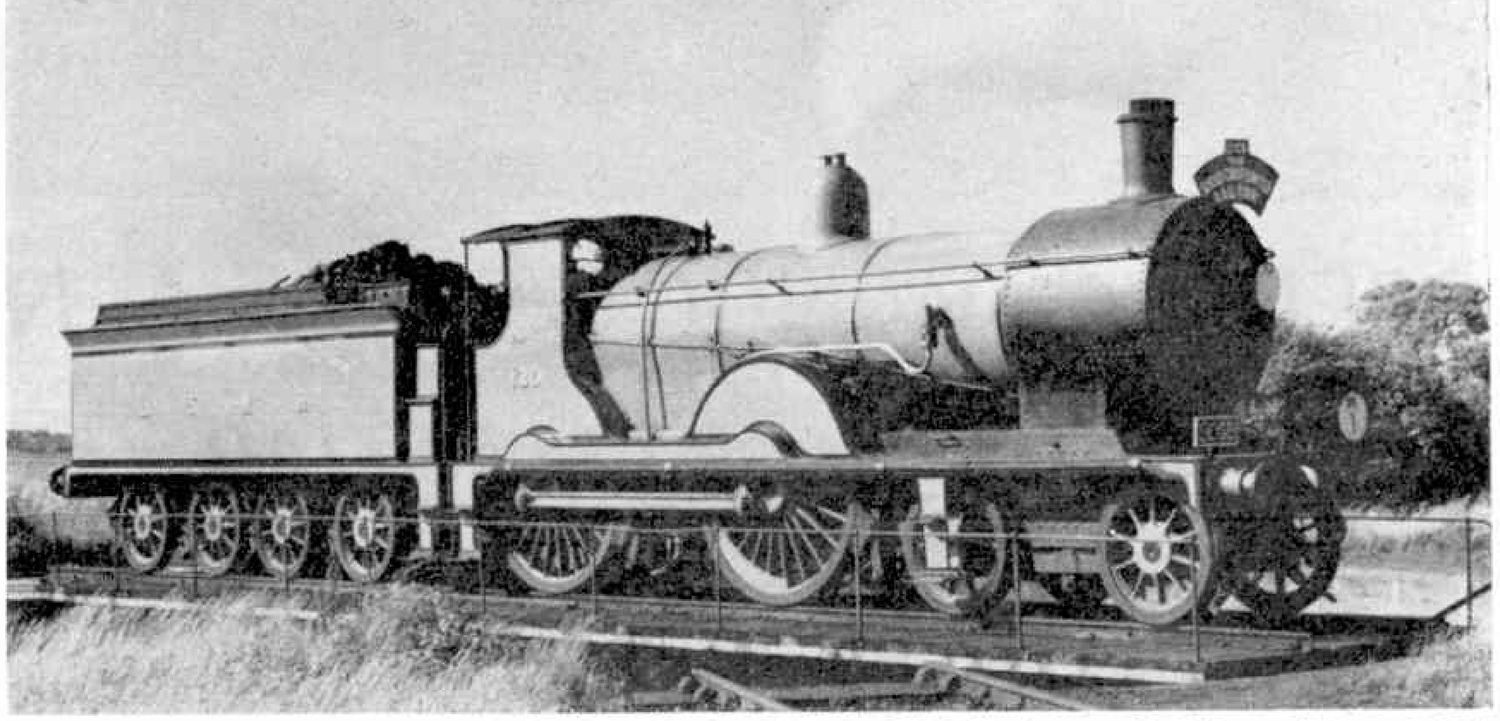
PACIFICS IN TWO COUNTRIES

My friend, Mr. D. S. M. Barrie, M.B.E., reports an unusual recent experience when he travelled from Paris to York entirely behind steam 4–6–2 or Pacific locomotives. From Paris (St. Lazare) to Havre, S.N.C.F. No. 231.D.408 with a light, 7-car train weighing 236 tonnes, covered the initial 87½ miles over ups-and-downs to Rouen stop in 88½ minutes, in spite of four repair slowings. After disembarking at Southampton, the S.R. boat train to Waterloo was hauled by West Country class engine, No. 34091, *Weymouth*. From King's Cross, A4 No. 60019, *Bittern*—a third, quite different style Pacific—with the 14-coach Sunday 10.55 a.m. Scottish express did its best work between Peterborough, and the first stop, Grantham. The 29 miles between these two points were covered in 30 minutes with a minimum speed of 56 m.p.h. over Stoke Summit.

THE BLUEBELL LINE

Alighting from one of the S.R. local electric trains from Haywards Heath, on the Brighton main line, I reached, via the subway at Horsted Keynes, the fascinating territory of the only standard gauge, "ex-main line", privately-operated passenger railway in Britain—now known as the Bluebell line. Trains on this route have an engine at either end since there are no





Top: A scene on the Bluebell Line at Sheffield Park, where S. C. Nash photographed the ex-S.E. and C.R. 0–6–0T with a train of former Metropolitan coaches. Below: The restored L.S.W.R. T9 4–4–0 No. 120 on the turntable at Eastbourne, in the course of running an enthusiasts' special. This photograph is also by S. C. Nash.

run-round facilities, and I found that the 4-coach set train of Metropolitan Railway stock, plus a blue bogie carriage, had the 82-year-old No. 2650—only surviving North London Railway 0–6–0T (formerly B.R. No. 58850)—at one end. The 52-year-old P class, one-time South Eastern & Chatham 0–6–0T, more recently in service as S.R. No. 31027 but now No. 27 *Primrose*, was at the other.

The other Bluebell Railway-owned P tank, proudly named *Bluebell*, now also carrying its original number, 323, became the front engine for the return journey. I was glad to accept the invitation of Mr. Horace May, General Manager and Stationmaster, to travel on the footplate. I met Bishop Warde, President of the Bluebell Line Preservation Society and members of the volunteer staff who wore red ties and old-time railway caps.

Two more small tank veterans were at the depot, restored to the bright colours and numbering of their original company owners. One was No. 55, *Stepney*, "Terrier" 0–6–0, erstwhile London, Brighton & South Coast–Southern; the other was the former London and South Western – East Kent Railway – Southern 4–4–2T (No. 488). All the rolling stock is smartly turned out. A much larger 4–4–0 tender locomotive, Great Western–W.R. No. 9017, of the class lately withdrawn from Central Wales, had more recently arrived on loan and presented a rather worn appearance.

I also noted, at Sheffield Park, an early Southern buffet car berthed in the loading dock to supply refreshments; two diminutive 0–4–0Ts from industrial concerns, and some old carriages and vans.

Inside a former waiting room is an interesting exhibition of general railway relics, models, pictures and so on. Visitors were numerous while I was there.

BUSY S.R. DAYS

On summer Saturdays, passenger traffic of very considerable dimensions is dealt with at Waterloo, to and from Basingstoke and the Southampton and Salisbury main lines. A few Type 3 diesel-electric locomotives have begun fast train running from Eastleigh Shed on the Southampton route; otherwise my own observations, and those of friends, showed that between July and September last steam reigned supreme. Rather astonishingly, on some of the earlier peak Saturdays, the 63-year-old

(*Continued on page 467*)

OPENING WINDOWS ON A NEW, GLEAMING ROLLS: SMART JAGUAR WITH LIFT-UP BOOT

Movable Policeman To Control Traffic

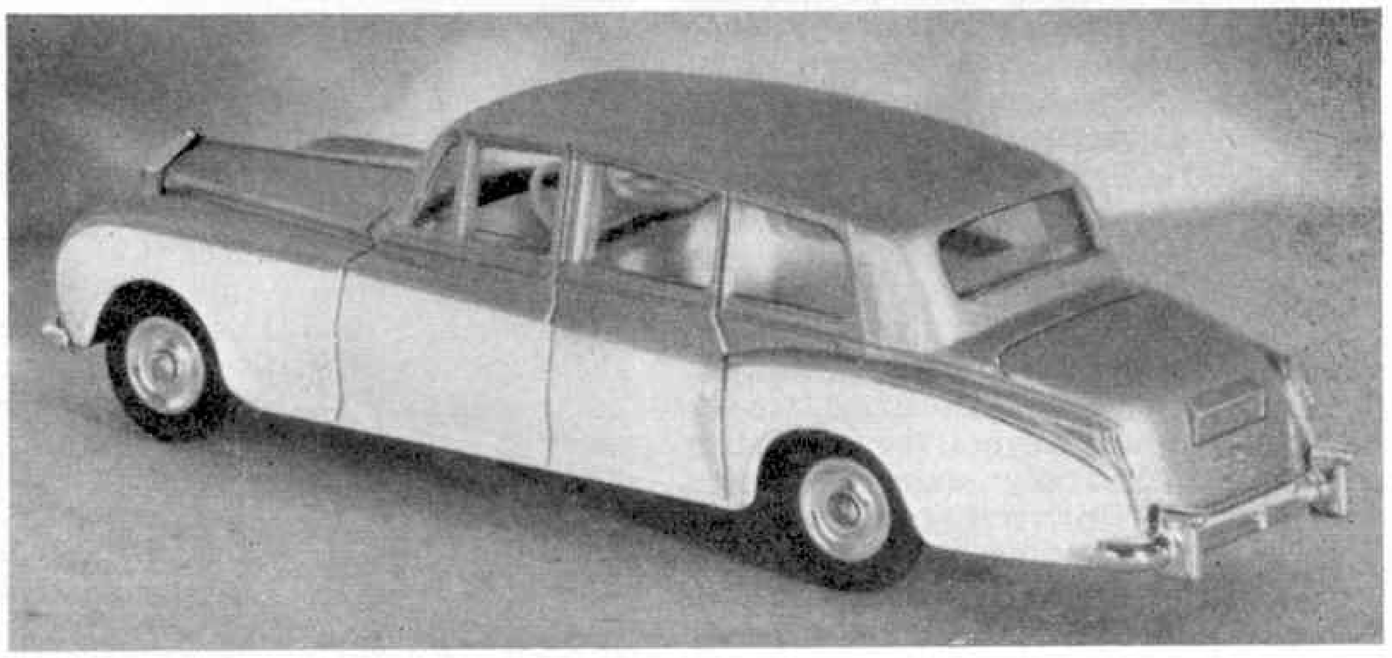
A sparkling model it is indeed, built in the tradition of the Dinky Toys luxury cars; more important still, it sees the introduction of yet another "first" for Dinky Toys—opening windows!

DINKY TOYS NEWS
By The Toyman

REMEMBER, remember, the Fifth of November! And I remember that at this time last year I introduced a model Fire Engine and Fire Station and reminded readers of the great risk of damage on Guy Fawkes Day. This year, however, I do not intend to lecture anybody, except to remark that I hope all who set out to enjoy themselves will use caution and commonsense in what they are about. Now, having said that let me present right away the first of our new models—three wonderful new items—to be released this month. It is one for which all collectors have been waiting, and which will be the very centrepiece of any collection—the Rolls-Royce Phantom V, listed as Dinky Toys model No. 198.

As everyone knows, the Rolls-Royce is the acme of perfection in cars and we at Meccano feel that this miniature will hold that honour in the model world. In fact, we have already received endless inquiries through the illustration in our latest catalogue of this fine limousine.

How realistic these windows are can be seen from the illustrations on this page. The windows of both doors are movable at will and this adds enormously to the naturalness of the model which carries, in addition, all the usual Dinky Toys



An aristocrat among models is the new Dinky Toys Rolls-Royce Phantom V pictured above in a typical city scene. The chauffeur can be seen in this illustration which emphasises the immaculate detail at the front of the car. Right: A close-up view taken from the near side rear.

refinements—Prestomatic steering, four-wheel suspension, seats and steering wheel. And, once again, as in the case of the Cadillac 62 about which I wrote last month, a superb Polychromatic finish has been used.

The Phantom V is two-tone with a most unusual, yet attractive shade of green for the roof, bonnet, boot and wings and ivory for the lower part of the car. It is fitted with plated radiator, grilles and bumpers, with twin spotlights fitted just above the front bumper bar. The imitation upholstery inside the car, with a comfortably divided rear seat, is in powder blue. To round off this quite enchanting model there is a liveried chauffeur who sits purposefully at the ivory-coloured steering wheel.

The actual Phantom V is manufactured by the Motor Car Division of Rolls-Royce Limited, London W.1, with coachwork by Park Ward and James Young, who are among the best known coachbuilders in the world. It is powered by a V8 engine of 6,230 c.c. capacity which gives a maximum speed of 100 m.p.h. and allows comfortable cruising at 85 m.p.h. for long distances. Understandably, with an engine of this size the fuel capacity is rather high, being 12 m.p.g., but then, if you own a Rolls there is a good chance that you will be able to afford the petrol!

Overall dimensions of this queen of limousines are: Length 19 feet 10 inches; width 6 feet 7 inches; height 5 feet 9 inches; wheelbase 12 feet; maximum track 5 feet 4 inches. In all, an absolutely superb model.

I am sure many readers will be interested in a letter which was sent to us by Mr. C. W. Ward, Director of Park Ward when we made the Rolls-Royce Silver Wraith.

The sleek and speedy Jaguar Mark 10 in Dinky Toys model form. Top picture shows how the boot lifts up; the illustration on the right reveals the roomy boot itself and shows the luggage provided with this model.

"I really must congratulate your company", he wrote, "on the excellent job that they have made of this reproduction, and I am sure that the car will delight many children and grown-ups alike—when the latter can get them away from their offsprings. The springing and chromium-plated details are perfect and indicate how much care and thought has gone into the production of this toy. In other words—'The Best (toy) Car in the World'."

Adding to the excitement of the month is the release of another outstanding car, the Jaguar Mark 10 Saloon (Dinky Toys No. 142). This, too, is fitted with a new Dinky Toys feature, an opening boot revealing a roomy interior with a travelling trunk and valise.

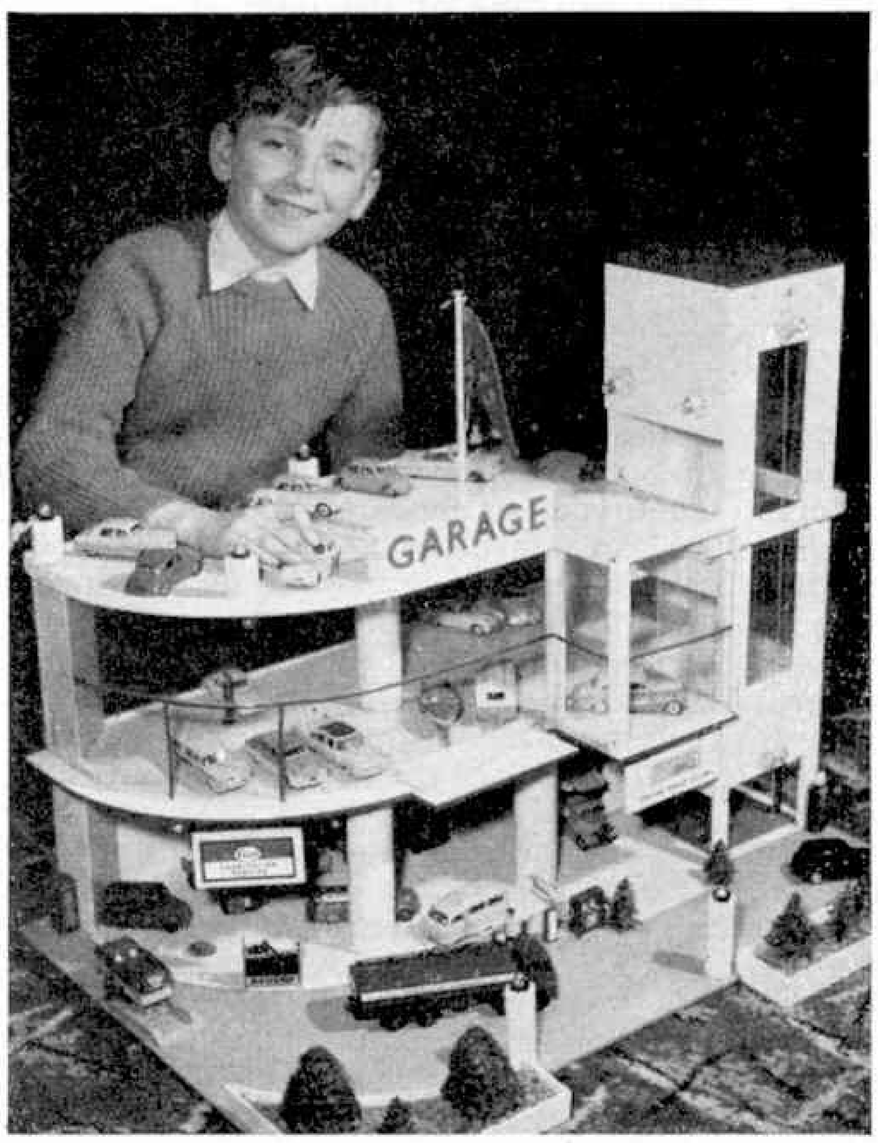
A fully die-cast base includes all the underside detail and once again a Polychromatic finish has been applied, this time in steel blue. Again the extras which are now standard on Dinky Toys models—windows, seats, suspension, Prestomatic steering and a steering wheel are included and this car, with the Rolls-Royce Phantom V described previously, will certainly add flair to any layout.

The prototype of the Jaguar Mark 10 is manufactured by Jaguar Cars Limited of Coventry and is powered by a 6-cylinder engine of 3,781 c.c., developing a brake horse power of 265. It has a top speed of 120 m.p.h. and a cruising speed of 90 m.p.h. and the car's overall dimensions are: Length 16 feet 10 inches; width 7 feet $4\frac{3}{8}$ inches; height 4 feet $6\frac{1}{2}$ inches; wheelbase 10 feet; maximum track 4 feet 10 inches.

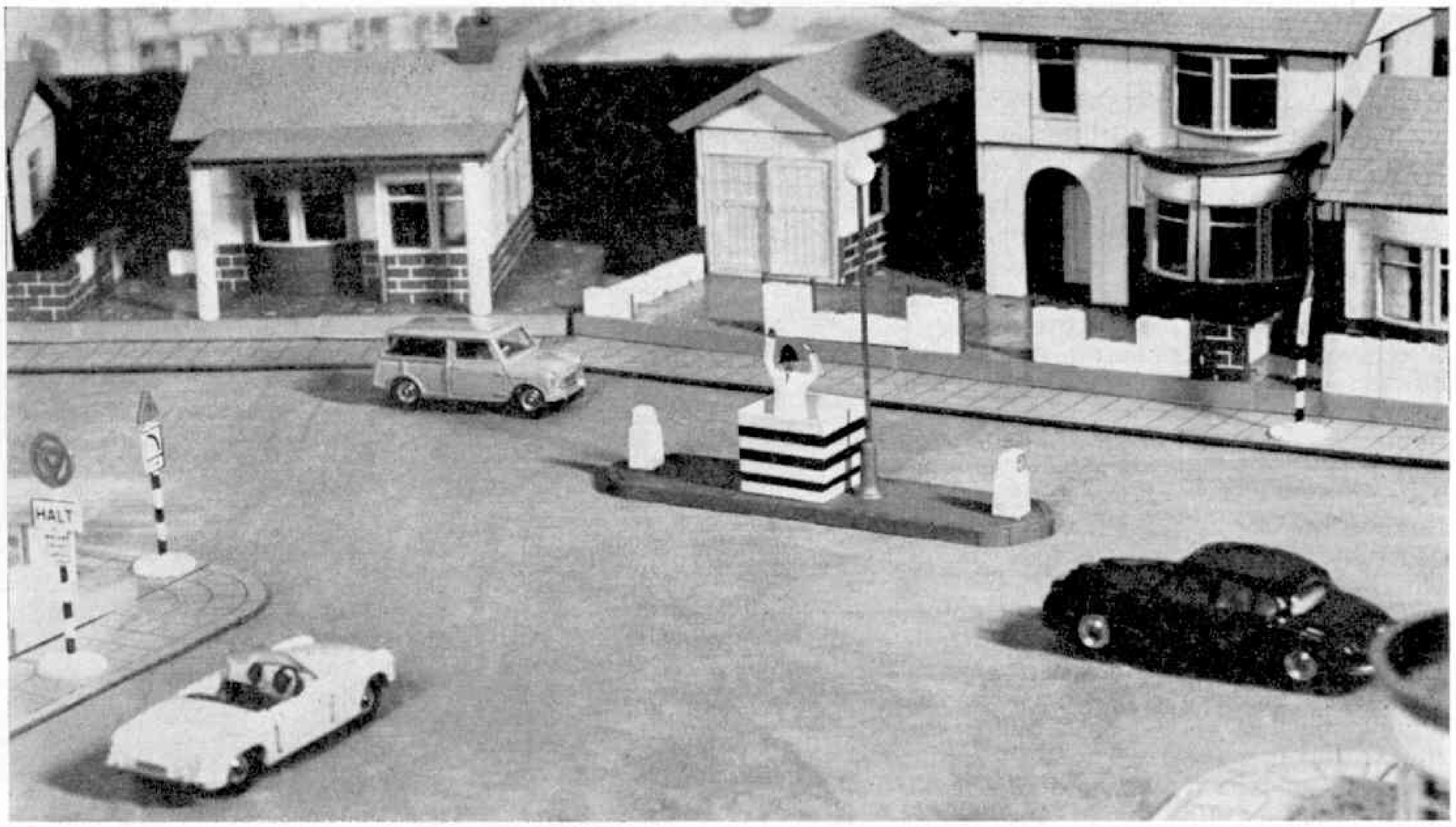
* * * *

"Halt"—that is what the road sign reads in the illustration at the head of page 444 and that also is the meaning of the signal being given by the policeman in the centre of the picture to the driver of the Dinky Toys MG B Sports Car in the left foreground. I will have something to tell you about the MG B a little later on, but it is to the policeman that I would draw your attention at the moment because he forms part of our third new model to be released this month.

It is a Police-Controlled Crossing of neat design and is No. 753 in the Dinky Toys list. Made from high-impact



A Dinky Toys enthusiast with a wonderful collection of models is Lawrence Bennett of Tettenhall, Staffordshire, seen on the left. Lawrence assisted his father, Mr. R. B. Bennett, to build the magnificent garage by which he is standing. It has three floors, is fitted with lighting and is worked by a Meccano Motor. Lawrence is a regular reader of the "Meccano Magazine" and a true Dinky Toys enthusiast.



Centrepiece of this study of a three-way junction is the new Dinky Toys Police-Controlled Crossing. The policeman revolves to give signals in various directions. Good use has been made of Bayko to provide the very realistic background.

polystyrene it consists of a black and white horizontally-striped traffic box in which the policeman stands, and an island complete with "keep left" bollards and a lamp post. The "keep left" bollards are fixed but the remainder of this attractive crossing is in kit form and the fascinating feature of it is that the policeman can be rotated by a small wheel which projects slightly from the box, so that he can face any particular part of the roadway. You see how effective it looks at a road junction built up with the aid of a Dinky Toys Pavement Set No. 754 and items from the British Road Signs outfit.

And now, I want to include some technical details of the MG B Sports Car which I was unable to provide in my notes last month. It is made by the British Motor Corporation at their Abingdon sports car factory and power is supplied by a 4-cylinder o.h.v. engine of 1,798 c.c., developing 94 b.h.p. at 5,500 r.p.m. Top speed is in excess of 100 m.p.h. and braking is by the Lockheed hydraulic system, with disc brakes on the front wheels and drum brakes at the rear.

Just a friendly word in closing to remind readers to be very careful on the roads now that the nights are dark. Remember, too, that this is the time of year when the roads may be wet and icy. If you are riding a cycle make sure that your lights and brakes are working properly, and if you are walking try to wear or carry something that is light in colour, so that you can easily be seen by drivers.

BOOK REVIEWS

Today perhaps more than ever before in the history of our railways, branch lines have achieved public prominence not through being extended, but by being closed. There were hundreds of such lines, in town and country districts, which provided the communities which they served with regular and reliable transport. They fulfilled an essential purpose for very many years until the development of the motor car and motor bus began to make an impact. Such proportions has this now reached, that scarcely a month passes without one or more passenger, and sometimes freight services, being abandoned and lines closed. This state of affairs has led to the railway enthusiast recording on film such lines as are left to him while there is still time. It seems certain that the branch passenger train will be but a memory only a few years from now, and **Branch Line Album** by P. B. Whitehouse (Ian Allan, price 30/–) is just the book which will recall what such trains looked like and the varied kinds of country which they served.

This 128-page book consists mainly of photographs with full and informative captions, each giving a description of the scene depicted and the motive power shown. The illustrations are of great and varied interest, and most of them are fairly recent.

* * * *

Written by R. Douglas Brown, **Tape Recording and Hi-Fi** (Arco Publications, 12/6) succeeds in illuminating the diverse mysteries of Hi-Fi and Tape Recording for the benefit of the reader ignorant in such matters. It does not try to cram the average reader full of the highly complicated theory involved in the design and manufacture of the equipment but, rather, introduces him to all he needs to know about high-fidelity and the recording and reproduction of sound, both by disc and tape equipment, in a simple, non-technical way. After his introduction he begins by describing the equipment and its cost, moves on to installation, touches on maintenance and, more important from the layman's point of view, spends a good deal of space on describing the different effects which can be obtained, and how to obtain them. In one of the later chapters the author investigates the legal aspects of amateur recording, with application to Great Britain only. The copyright laws in this country are very complex and this chapter serves to explain the position. The book is illustrated with 40 photographs and line drawings.

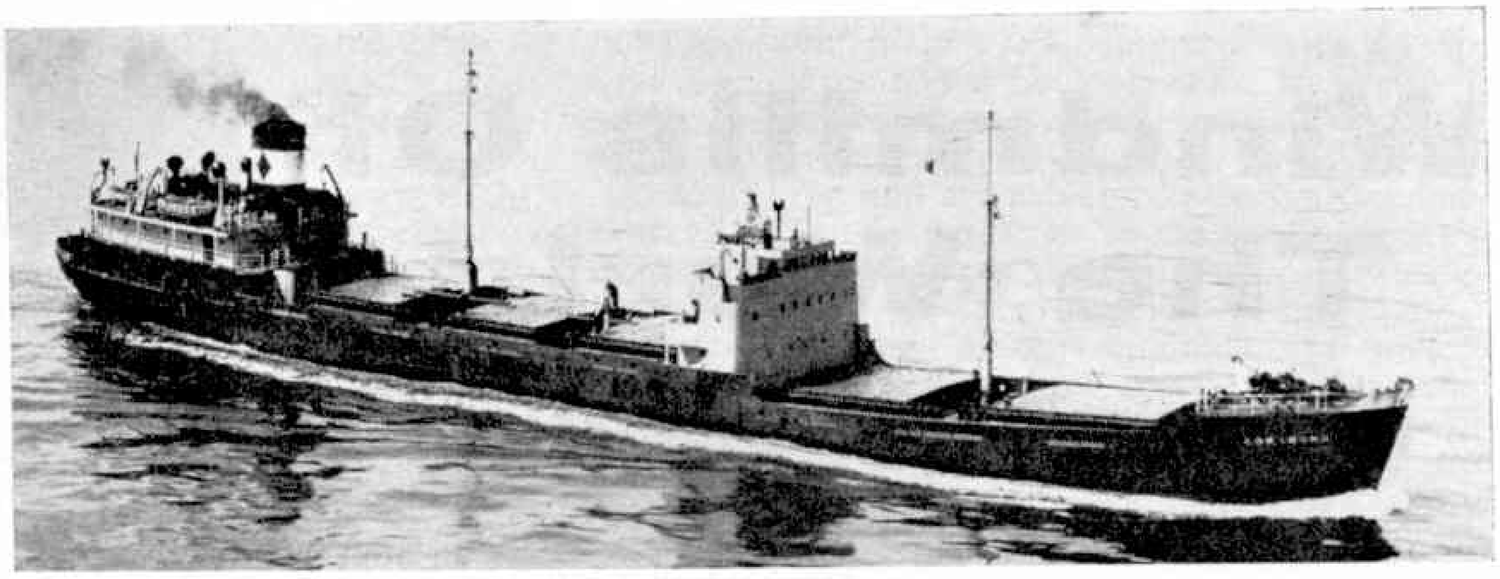
* * * *

Prepared and presented by M. J. Wilson, **European Cars 1962** (Ian Allan, 4/6) contains a wealth of useful information which is both interesting and helpful when identifying, or choosing between, different vehicles. It describes all Europe's new cars or, at least, every production model manufactured in Great Britain plus the current range of all the great Continental factories. Vehicles are grouped under their countries of origin thereby simplifying the study of the models manufactured by each individual country, making it easy for the reader to trace and compare the different cars. Each model is described in full detail and a glossary, giving their main specifications, is provided towards the end. The book is very well illustrated, with good use being made of more than 140 superb photographs showing most cars in the current European range.

COASTER COMMENTARY

By

ROBERT GORE



This aerial picture of the s.s. "Corsound" (3374 tons) shows her five large hatches.

"Flat-Iron" and other Colliers

READERS may recall that in the September issue of the *M.M.* mention was made of the small coasters regularly trading with distant parts of the world thereby showing that, in function at least, they were not really coasters at all, in spite of their appearance. Paradoxically, the largest of our coasters—colliers and some tankers of up to 3,500 tons—are more true to type than their smaller sisters for they rarely trade abroad and generally sail within sight of land. This does not imply that it is impossible for them to voyage to most parts of the globe (except, perhaps, to ice-bound waters against which their hulls are not strengthened) because they are sufficiently well equipped to remain at sea for long periods without refuelling or reprovisioning.

Modern vessels, in addition to having a radio telephone, are fitted with a position-fixing device, with radar and with an echo-sounder to ascertain the depth of water so that there should be no navigational problems. Centrally-heated, single-berth cabins assure the comfort of the officers and crew whose dietary needs are supplied by food kept fresh in a spacious refrigerator. A recreation room, library, laundry and adequate washing facilities are available and radio and television sets are also provided.

Bottom picture: Many medium-sized colliers have three hatches like the "Steyning" (1637 tons). Above: The Central Electricity Generating Board's 1773-ton "flat-iron" collier "Fulham VIII".

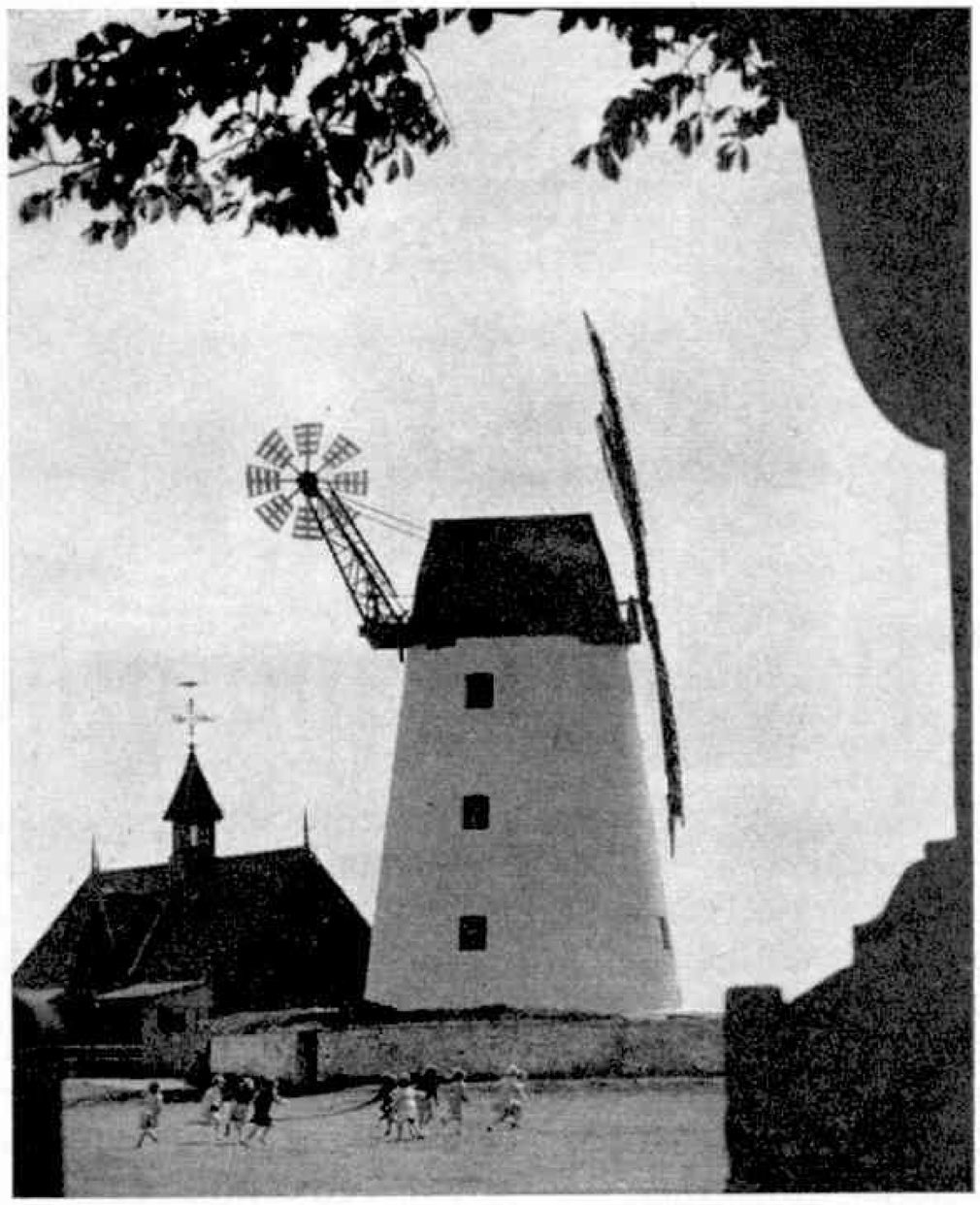
A forward well-deck, a bridge amidships, and a raised quarter-deck with engines aft are characteristics normally associated with a collier, but it should be borne in mind that any coaster designed for bulk dry cargo carrying could be used for the transport of coal. At a distance, or in poor visibility, the features described above could cause a collier to resemble a tanker. Other similarities to tankers are slender masts and the absence of derricks which are not required for loading or discharge as this is done by quayside equipment. You will see from the illustrations that there may be as many as five holds with large hatches to give ease of working by crane grabs. Little deck space is evident and the heavy steel hatch covers are sectional so that they can be quickly raised or lowered into place by a winch. When raised, the sections slide closely together in a vertical position clear of the hatches.

One particular type of collier that deserves special notice is the "flat-iron", so-called because of its rather flat and uninteresting profile but usually possessing the same typical hull formation. "Flatties", as they are more affectionately known along the coast, are constructed with telescopic funnels and masts and extremely low superstructures to enable them to pass under the bridges across the Thames so that coal can be supplied to the power stations above the Pool of London. The first prototypes, the *Vauxhall* and the *Westminster* (817 tons each) were built as long ago as 1878 and were followed in the next year by the 923-ton *Lambeth*.

Should you be close enough to see a number prominently displayed on the starboard side of the wheelhouse of a collier, remember that this serves as a means of identification for the Coal Factors Society's hailing station at Tilbury. At this point the station is only a few hundred feet from the up-river channel so that it is not difficult to pass messages, usually relating to berthing arrangements, to a vessel. At night, a ship identifies herself by showing a vertical group of coloured lights on the wheelhouse.

Windmills Of The World

A SURVEY BY LESLIE HUNT



Standing amid the serenity of Lytham's famous Green is this fine mill, one of several in the Fylde. Picture by courtesy of the Lytham St. Annes Express.

EVERY now and then you will see in your newspapers an appeal for money to help save a beautiful link with the past—a windmill—perhaps of the tower variety or of the post type. Sometimes the latter will be built on to an oak tree firmly rooted into the ground for centuries. Sadly, there are many people, even in the British Isles, who have never seen a windmill in action for very few of the remaining ones can be operated. Now the "Men of the Stones" as they are called in some counties, are working desperately to preserve part of our heritage, for they were often a source of inspiration to famous writers and painters and are a reminder of the days before cars and aeroplanes.

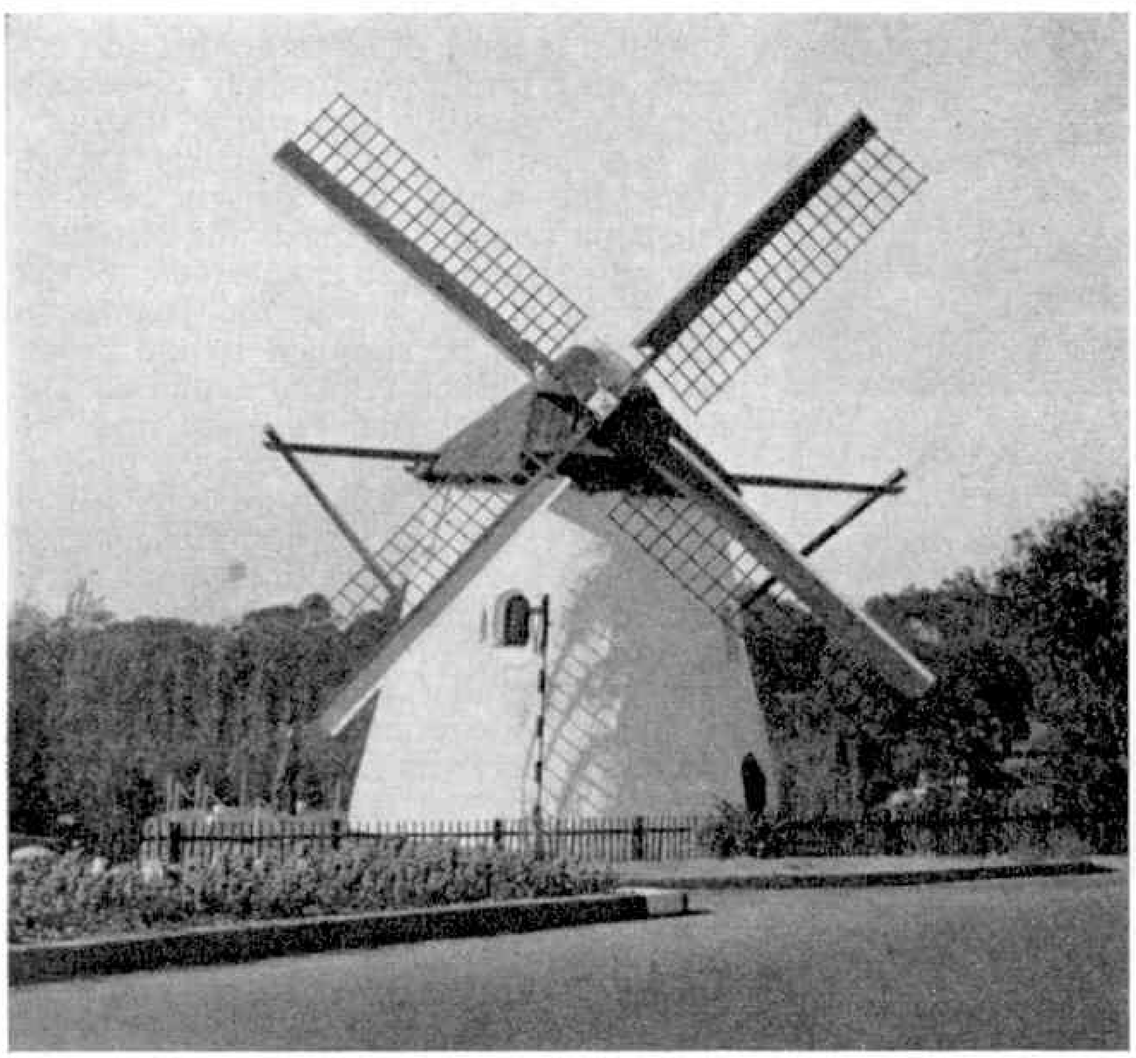
Windmills seem to have appeared in Western Europe in the twelfth century and, in small numbers, in England before the beginning of the thirteenth century, usually in the form of the mill run by the Lord of the Manor. It was not until the late Middle Ages, in fact, that a law which prevented the building of windmills in opposition to the manorial mills was abolished. With the abolition of this unjust statute, windmills sprung up almost overnight and at one time it was reported that more than 10,000 were at work in England.

Robert Louis Stevenson once wrote, "There are indeed few merrier spectacles than that of many windmills bickering together in a fresh breeze over a woody country, their halting alacrity of movement, their pleasant business making bread all day."

The first design to appear in England was the post-mill, a box-like body of timber carrying the sails and containing the machinery being mounted on a huge upright "post" on which it turned. Next to appear was the tower-mill which consisted of a fixed tower, allowing more space for machinery, and with a "cap" which carried the sails. The tower-mill probably appeared in England at the end of the fourteenth century.

A survey in 1948 revealed that there were fewer than 50 working windmills in England and today it is reported there are now less than twelve in use for their original purpose, some being utilised for drainage work in the Lincolnshire Fens. It was in 1929 that the Society for the Protection of Ancient Buildings began to interest itself in the disappearing windmill, forming a Windmill Section which has done splendid work in preserving old mills. One of their greatest successes was the restoration of our oldest post-mill, known to have been in existence at Bourn, Cambs, in 1636 and possibly much earlier than that.

To commemorate the Coronation of Queen Elizabeth II, the Upminster, Essex, smock mill was repaired and re-decorated. Today, alas, it is again falling into decay—



Mostert's Mill at Cape Town (left) and (right) the smock mill at Upminster. Photographs by the author.

The upper illustration shows a typical windmill on the island of Walcheren, in Holland. Photograph by courtesy of Netherlands Tourist Office, The Hague. Below: This picture by Neil Hunt shows the windmill at Bruges.

the target for hooligans and a headache for the few public-spirited people who wish to keep it intact for the benefit of the thousands who see it each day from the electric trains. It makes a restful picture for the city worker. Not very far away, also in Essex, at Stansted Mountfitchet, the tower-mill was saved, almost devoid of sails, and is now the local headquarters of the Boy Scouts. At Great Gransden, Hunts, the windmill is to be restored, at a cost of £1,000, by the county council. They are conscious of the fact that this part of local history is attractive to tourists and that the mill is a photographic target without parallel for motorists, cyclists, or hikers, and a challenge to the sketch-block of the budding Rembrandt.

Britain's largest working windmill is said to be at Sibsey, Lincs., while at Heckington, also in Lincolnshire, is an eight-sail windmill—probably the only one of its kind left. From Rye, Sussex, recently came a claim that the windmill there was still grinding, although the fine windmill at Terling, the last of the Essex windmills to grind corn, is now silent.

A most unusual windmill is to be seen at Chesterton in Warwickshire. Built in 1632 as an observatory for Sir Edward Peto it was converted into a windmill by Inigo Jones, or one of his pupils, in the early eighteenth century. The original tower was erected for "the noble view" and the stout structure is, indeed, a fine tribute to the builders. Another windmill associated with the immortals is to be found at Chailey, Sussex, and there is another famous mill at Shalford, Surrey. Not all of our windmills were employed on corn grinding. Algarkirk, Lincs, for instance, boasts England's last woad mill.

People in the London area with insufficient time to tour the Fenlands should take the A12 from London to Chelmsford. At Mountnessing, between Brentwood and Ingatestone, they will find a delightful post-mill just off the main road, complete with sweeps, steps and a tail pole shift. It is easy to approach and often the visitor can join a conducted party to whom the workings of the mill are explained. Only a few miles further takes one to the lovely hamlet of Stock where there is another preserved windmill—also available for inspection.

Many of our windmills are now on private ground and not all can be inspected, although a proper approach to the owner will generally result in a warm invitation to see the windmill at close quarters, even if the interior is not open to view. The mill at Finchingfield had new sails in 1959 and is a credit to the district. Cranbrook in Kent also boasts a beautiful windmill and at Stevington, Beds, the eighteenth-century windmill should be visited, although it is sad that we cannot witness what was in its time a revolutionary advance—sails with sweeps which could furl and unfurl. If, by chance, you are going from Bedfordshire to see the remaining Essex mills, include Great Chishall, on the Cambs–Essex border. There, between Royston and Saffron Walden, is a perfect post-mill, easy to photograph in an area not as built-up as some which make windmills a difficult subject without a wide-angle lens.

Lancashire is generally associated with cotton mills but can also boast some magnificent examples of the windmill. Three fine specimens are at Lund, on the outskirts of Blackpool (where four perfect sails were turning merrily in living memory) and, best known of all perhaps, at Lytham, where there has been a windmill on or near the spot for 800 years. The solid white tower with cap like an inverted boat carried four sails which, in 1919, were swung by the wind in the wrong direction, firing the mill and ruining the machinery which has not worked since.

Yorkshire, too, can produce windmills in various stages of repair or neglect, and although Newcastle-on-Tyne is hardly the country district it was in the eighteenth century it was there that John Smeaton—of Eddystone Lighthouse fame—built the first five-sail windmill. At Bryn-du, Cemaes Bay, Anglesey, a claim has been made for the only windmill in Wales; certainly the writer does not know of others, nor of any in a state of preservation in Scotland, although it was a Scot, Andrew Meikle, who, about 1750, invented a fly, or fan-tail, which turned the wooden caps of some windmills automatically into the wind, causing the assembly of sails to revolve. One of his best examples is in the Pakenham Mill, between Bury St. Edmunds and Ipswich—one of the last of our working windmills which has been in the family of Bryant almost 150 years.

Very similar to Pakenham windmill is that at Barnack, Northants, and the Lord-Lieutenant of the County, Earl Spencer, headed an effort to save this fine tower-mill with machinery intact. A splendid example of inter-county co-operation was that donations were also being received in Lincolnshire—at Stamford—for this inter-

esting Northamptonshire relic.

Those of you who travel abroad may already have been to Holland, the home of windmills—or, as they are known in Holland, "Korenmolen"—where many fine examples still remain. Men who served in World War II and fought on the Isle of Walcheren treasure memories of the squat, white-painted tower-mills there.

In Belgium, too, are some rare examples. One such, at Bruges, is of the post type which can be seen in parts of Essex, and was possibly first introduced to this country by some Flemish refugee who fled to England to escape religious persecution centuries ago. Certainly many of our windmills owe much to the influence of Dutch emigrants when the knowledgeable men of the Netherlands came to reclaim Canvey Island from the River Thames and to build their quaint, round, thatched houses and windmills.

In Portugal, Spain, Majorca and the Azores—in pleasing contrast to the tower, post and smock mills in other parts of Europe—are many attractive counterparts with special features not to be found elsewhere. The design of the sweeps in these countries consists of braced spars on which canvas sails are rigged. These can be furled, reefed, or adjusted for the many variations of the wind. Most of these mills are in the regions around the coastlines, on high ridges, where advantage may be taken of the prevailing wind. The majority are still used for grinding corn, although some have recently gone over to water pumping.

In Spain and in the Balearic Islands—Majorca especially—visitors are often puzzled by the sound of humming during the hours of darkness when Mediterranean warmth encourages romance. But the sound is not from the guitars of would-be Romeos—it is caused by small pots fastened to the spars of local windmills so that the farmer will be able to tell at any time of the night whether the sails are revolving. It is said that some farmers, through long experience, can even judge the speed from the note produced.

Long wooden tailpoles rotate the caps manually in most of the areas of Southern Europe and there are some gems for keen cameramen. Of especial appeal is Don Quixote's favourite windmill near Madrijedos, in Spain, where the greatest "tilter" of all times battled on Rosinante's back, in home-made armour, attended by his faithful squire Sancho Panza. Cervantes' hero may not rank with the Knights of the Round Table or with Robin Hood, but he will always be associated with those of lofty ideals who try to achieve success in a world which often does not share the same feelings.

Another important country to windmill enthusiasts is Greece. At Mykonos are some ancient mills overlooking the town, one of them, nicknamed "Bags of Wind", a veritable discovery for photographers who find themselves surrounded by hordes of chickens foraging for bits of grain scattered by the sails.

I was disappointed not to find windmills in Malta, Cyprus, Lebanon, or in other parts of the Middle East where, in many places, the most primitive methods—even as described in the Bible—are still being used to grind corn. I learned, however, with considerable pleasure of Mostert's Mill near Cape Town, South Africa. Built in 1796, it is now a national monument. The heavy wooden mechanism is still in perfect working order and this tribute to the early Dutch settlers is one of the Republic's attractions for tourists.

Journeying through Pakistan, India, Burma and Thailand into Malaya without sight or sound of a windmill, I quite thought there would be some examples in Indonesia, where the Dutch ruled for so long. Here again I was unlucky in my search. In Australia, being able to call only briefly at Perth and Adelaide, I had no time to visit two windmills which, I am told, are kept in excellent shape as a memorial to those who founded the Commonwealth of Australia.

In Tasmania, a report of an old mill near Launceston caused me to hire a car, only to discover on arrival at the spot that it was a nineteenth century flour mill complete with chimney—now converted into a modern garage. Such is progress! In New Zealand, too, I toured both islands without seeing any. Continuing my round-the-world journey, I found no mills in Panama. Optimistically I felt that the Dutch-owned West Indies island of Curacao might produce a surprise—but, no. Here, it seems, there was so much slave labour in the early days that the white settlers grew rich and fat without having to build themselves the windmills they had known in Holland.

So through the U.S.A. and Canada—lots of sugar mills and sawmills but not the lovely sight for which I was now becoming homesick, so much so that soon after reaching England again I was glad to go down to the sea-front at Southend just to check that the town's little windmill was still there. Although it is, in fact, only a model it reminds one of England's great treasures. Let us hope that there will "always be a windmill" for our descendants to admire, for while there is "There'll always be an England". The windmill may not have been our invention, but few countries made greater, or better, use of it.

More New Titles

Inventors are fascinating people. In **The Inventors of the World** by I. O. Evans, F.R.G.S., (Frederick Warne & Co. Ltd., 12/6) the lives of thirteen inventors are given in short but comprehensive form. Different in temperament, background and nationality these men have much in common — intelligence, inquisitiveness and, above all, great strength of character enabling them to overcome disappointment, illness, danger and active opposition. How many people know that Leonardo da Vinci not only drew the cartoon in the National Gallery, recently purchased for £800,000, but was a scientist and engineer as well? Samuel Morse, of Morse Code fame, first came to England to study art. Some inventors, such as Edison and Bell, achieved both fame and fortune. Others, like Baird of television, were not richly rewarded. It is not enough for an inventor to be clever—he must have physical and moral courage, a great sense of purpose, and the ability to keep calm like Sir Frank Whittle who stayed at the controls when an early jet engine nearly blew up on a test run. Well illustrated with drawings by Drake Brookshaw this book will appeal to all young people with inquiring minds. **H.G.**

* * * *

Arco Publications are to be congratulated for republishing **The Cruise of the Dazzler** by Jack London (12/6). As well as editing the story I. O. Evans has written a fascinating introduction about the author. Unlike many writers of adventure stories Jack London had lived the life he describes—that of an Oyster Bay pirate in San Francisco at the turn of the century. His vivid descriptions of wind and wave, rough sailormen and the boats they handled, ring true to anyone who has ever sailed a boat. The hero, a likeable boy with a distaste for lessons and a passion for adventure, will appeal to many young men faced with passing at "0" level. A simple map and a couple of drawings would have been welcome, but a good tale well told is always excellent value. **H.G.**

* * * *

COMMONWEALTH QUEEN ELIZABETH CATALOGUE

The 1963 edition of this, the only catalogue devoted exclusively to Commonwealth stamps of the present reign, takes full account of the very many interesting stamps which have been issued during the past year in the countries concerned, and every section has been most thoroughly revised. Countries like Great Britain, Australia, New Zealand and South Africa are of particular importance, due to their popularity, and the detailed and lavishly-illustrated lists reveal some very interesting new varieties. Kenya, Tanganyika, Singapore and other countries of the Commonwealth also include new and interesting data.

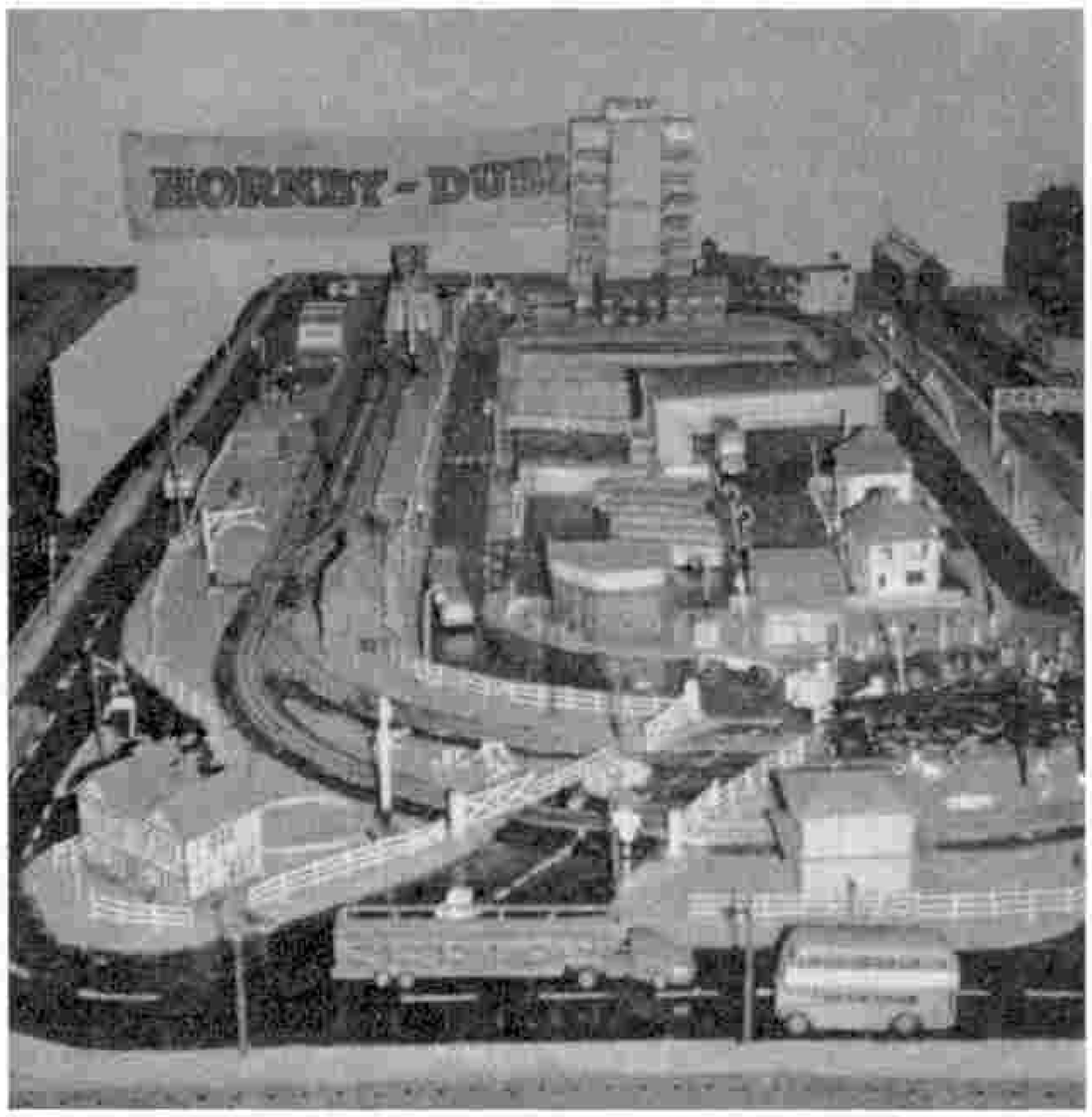
On the important question of valuations, the publishers emphasise that those given are market prices, not calculations influenced by whether the publishers' stocks of the stamps are high or low. The lists, in fact, contain everything which the most advanced philatelist will need, but are so clear that even a beginner can easily find his or her way about the catalogue. There is a useful introduction on such matters as shades, G.B. high values, watermarks, etc.

The catalogue is published by the Commonwealth Stamp Company, Leather Lane, Liverpool 2, price 8/6d, or 9/3d. including postage.

WITH THE SECRETARY

Club and Branch News

MECCANO Club and H.R.C. Branch committees considering ways of making their respective organisations better known locally, and thereby increasing their membership, will be interested in the reproduction on this page of the excellent poster recently issued by the Cape Peninsula M.C. I congratulate this South African Club on the excellence of this poster and on their enterprise in producing it. The actual poster measures 7¾ in. wide by 9½ in. deep—a very convenient size for a Meccano and Hornby Train dealer to find room for on his shop door or to display in some prominent position in his shop, a facility which our dealers are happy to grant to prospective Meccano Clubs and H.R.C. Branches whenever practicable.



(Above) This fine general view of the extensive Three-Rail layout of the North End (Portsmouth) H.R.C. Branch was taken by Mr. R. G. Enfield, the Leader of the associated Meccano Club. The wealth of scenic detail evident is a characteristic feature of layouts constructed, and operated, by this enthusiastic Branch. (Below) The excellent Cape Peninsula (Cape Town) M.C. poster referred to on this page.

CLUB NEWS FROM AUSTRALIA

MAYLANDS M.C.—The first Factions Exhibition of the Club year resulted in *Green and Gold* leading with 88 points, followed by *Black and Gold* and *Blue and Gold* each with 73 points. *Green and Gold* presented a realistic combination of an Airport and Rocket Range, complete with hangars, rockets ready on the launching pads and a complete radar system. The runway was fully equipped with lights for night operations, and the Club Leader was pleased with the very neat and efficient switchboard through which all operations were controlled by one operator. The exhibit of the *Black and Gold* Faction was a U-shaped Harbour, with adjoining roadways carrying busy streams of traffic. The model ships in the Harbour included two warships literally bristling with guns. *Blue and Gold* presented a Mine, in which the top of the table carried the surface workings, and a system of shelves below the table was made to realistically represent the galleries of the mine.

Martin Arnold, who has been a member of the Cape Peninsula M.C. of Cape Town, South Africa, visited the Maylands Club on his way through to Melbourne. He arrived in the liner *Northern Star*, and was met at the quayside by the Secretary and two other members of the Maylands M.C., who took him on a tour of Perth. At the Clubroom he was cordially welcomed, and saw the preparations being made for the above-mentioned Factions Exhibition.

The new Club committee, at its first meeting, decided to hold another Factions Exhibition toward the end of the year, and that the Factions should field teams to play in a new series of table tennis tournaments to be conducted during the Saturday meetings. The Committee also decided to support the idea of the Factions each taking a weekly turn on duty to assist in the management of the Club and its library. *Secretary:* Trevor Criddle, 17 Kenilworth Street, Maylands, Western Australia.

BRANCH NEWS

NORTH END (PORTSMOUTH)—Meetings are held at 36 Stubbington Avenue (side entrance in Beresford Road) on Monday to Thursday evenings inclusive, 7.15–9.30 p.m. Subscription: 1/– for adults and 6d. for juniors. The third section of Mr. Enfield's new layout is almost completed and trial runs have been carried out on it. The scenic accessories of his old layout have been further increased by the addition of a general store and a Bingo hall.

An epidiascope has been bought, so that photographs taken by members during their holidays can be projected on to a wide screen in the Clubroom.

The annual Christmas Bazaar of the Branch and its associated Meccano Club will open on November 28, and thereafter on Monday, Tuesday and Wednesday evenings from 7 until 9 o'clock. Admission: Adults, 6d. Children, 3d. *Secretary:* Mr. A. J. Nicholson, 213 Sultan Road, Buckland, Portsmouth.

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Further Information may be obtained from:
CHAIRMAN: NEVIL BOYDE PHONE 77-7262
LEADER AND SECRETARY: COLIN COHEN PHONE 44-4453
TREASURER: DAVID TEMLETT PHONE 77-4021

A "PUFFING BILLY" OF THE PAST

ANOTHER FASCINATING NOVELTY MODEL FOR THE JUNIORS

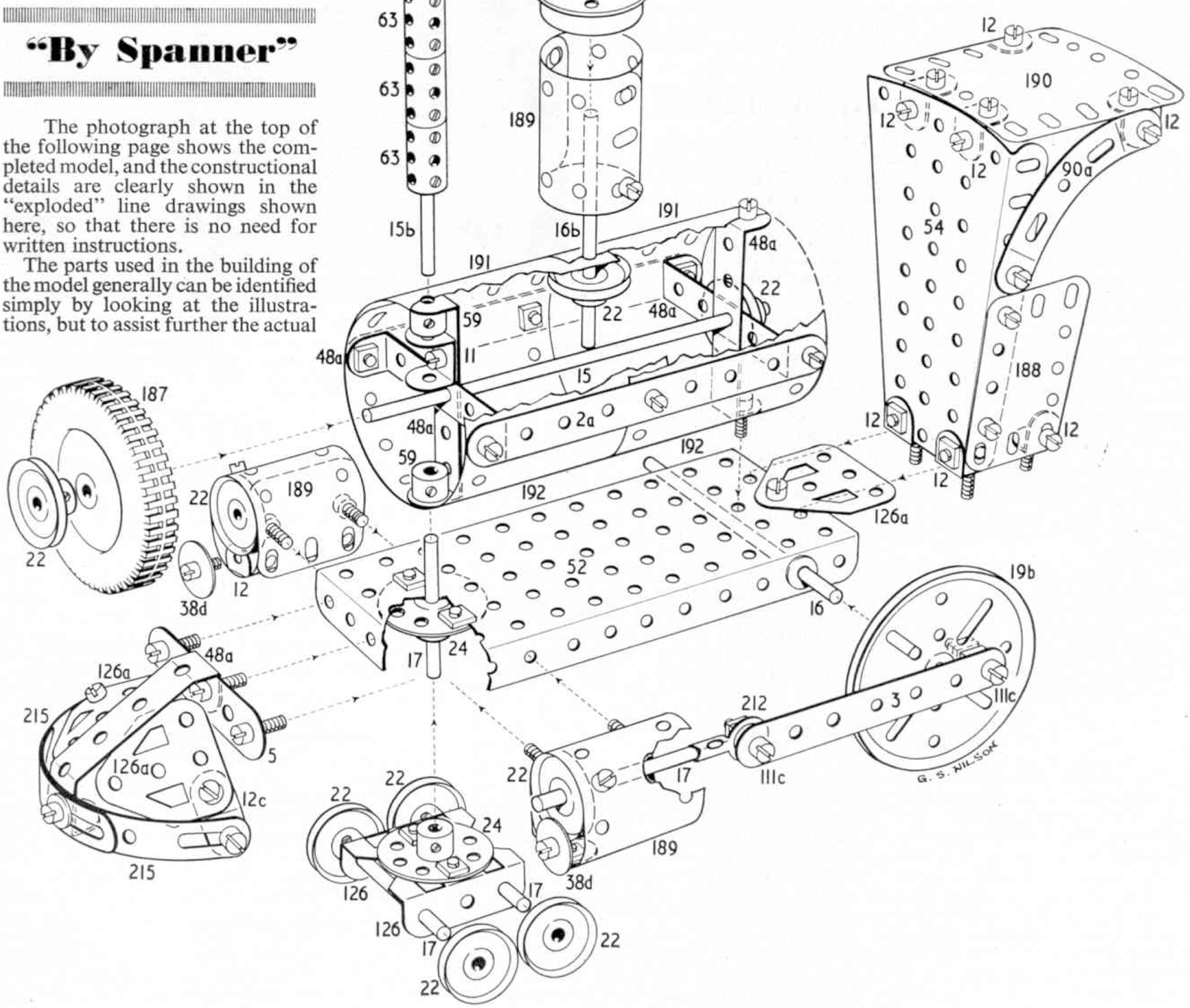
HERE is another attractive small model that is easy to build and is of an unusual and somewhat amusing type. It is an early type of steam "Puffing Billy", and is illustrated in a style similar to that used in the new 1962 Meccano Model Books.

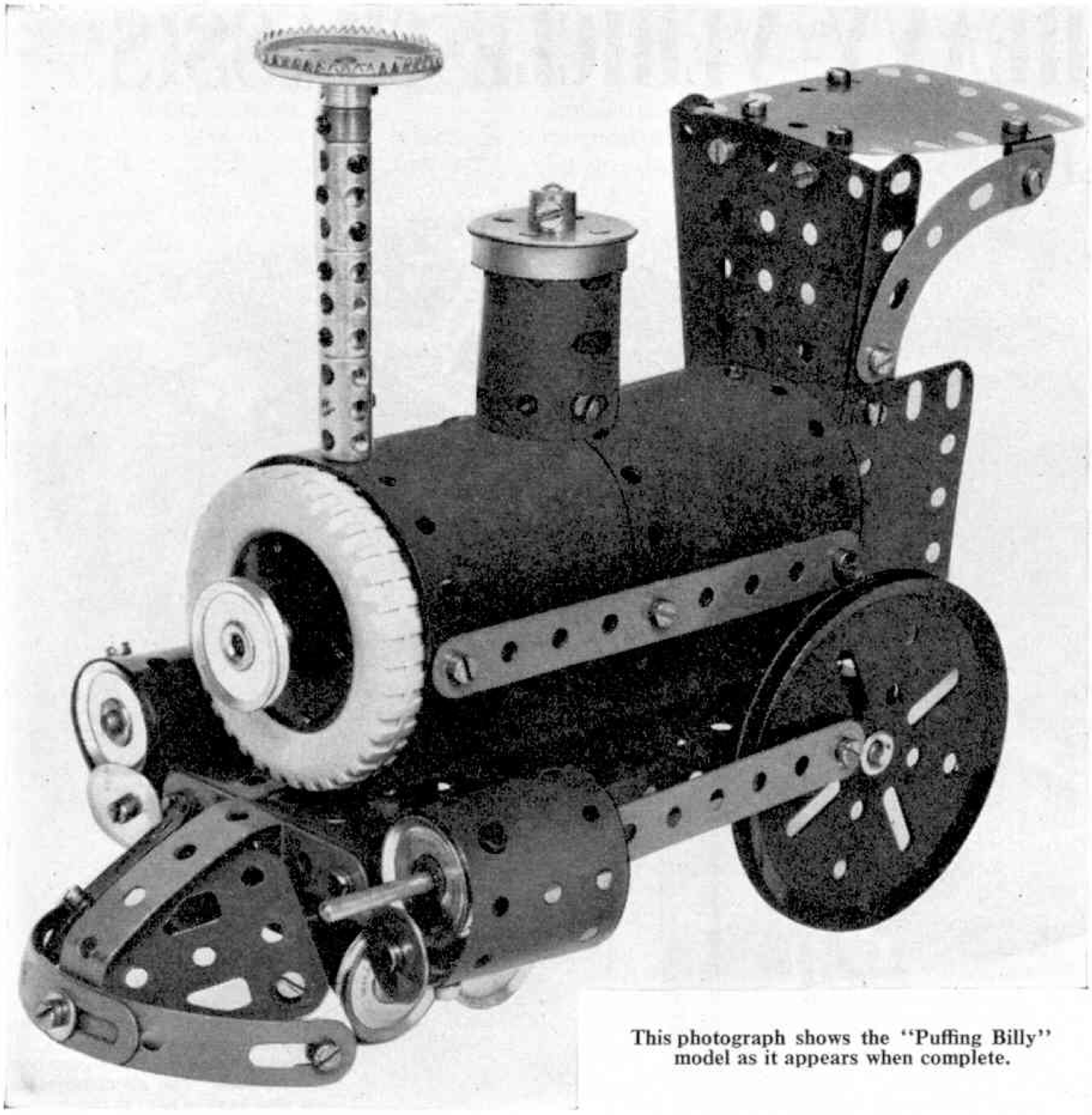
"By Spanner"

The photograph at the top of the following page shows the completed model, and the constructional details are clearly shown in the "exploded" line drawings shown here, so that there is no need for written instructions.

The parts used in the building of the model generally can be identified simply by looking at the illustrations, but to assist further the actual catalogue numbers of the parts are printed on the drawing.

As an additional help a list of parts required is provided and this list shows the quantity and type of each part used in the model. The parts required are as follows: 2 of No. 2a; 2 of No. 3; 1 of No. 5; 1 of No. 11; 10 of No. 12; 1 of No. 15; 1 of No. 15b; 1 of No. 16; 1 of No. 16b; 5 of No. 17; 2 of No. 19b; 1 of No. 20; 9 of No. 22; 1 of No. 24; 1 of No. 28; 58 of No. 37a; 52 of No. 37b; 4 of No. 38; 2 of No. 38d; 5 of No. 48a; 1 of No. 52; 1 of No. 54; 2 of No. 59; 3 of No. 63; 2 of No. 90a; 6 of No. 111c; 2 of No. 126; 3 of No. 126a; 1 of No. 187; 2 of No. 188; 3 of No. 189; 1 of No. 190; 2 of No. 191; 2 of No. 192; 2 of No. 212.





This photograph shows the "Puffing Billy" model as it appears when complete.

Meccano Heavy Vehicle Chassis—

(*Continued from page 453*)

air-pressure system, and it is powered by a single-cylinder double-acting compressor (11) which feeds air into a small ovoid reservoir located behind the radiator. An air valve (12), operated by the brake pedal (13) admits air to the twin brake chambers (14) which may be seen on the rear bogie side-cases. These chambers operate single-leading shoe cam-expanded brake units operative on the rearmost wheels directly, and on the remaining wheels through the transmission. Contrary to what it might suggest, the system is fairly proportional, and it is powerful enough to stop the vehicle quickly when it is moving down a 1 in 1 slope. On account of the leading-shoe characteristics of the system, the uphill performance is not as good, but cam-expanded leading-and-trailing shoe brakes would have been difficult to fit. Other systems such as transmission or disc brakes were discarded in the interests of realism.

One other criticism concerns the steering, which, although requiring six turns of the wheel from lock to lock, becomes heavy on soft surfaces. This is due mainly to imperfect Ackermann geometry, and permanent front-wheel-drive. Disengagement of this would probably render full-lock cornering impossible, due to the heavy front wheel loading.

However, in spite of its shortcomings, the chassis is most pleasant to drive (it will exceed 1 m.p.h. in 6th gear!) and was well worth the effort of building it, although the choice between a light-handling highway machine and a heavier yet pleasantly invincible cross-country tractor will always be entirely up to the individual model-builder.

Free Holiday Contest

To launch their new international travel game, "GO", Waddington Ltd., of Leeds, in association with *GO!* Magazine, are running a free holiday contest that will interest everyone who dreams of a holiday in the sun. First prize is a week's holiday for two in the Bahamas. The lucky winners will be flown by B.O.A.C. jetliner to Nassau, where they will stay at the fabulous Nassau Beach Hotel. To make their holiday complete, they will also be given £150 in Cook's travellers' cheques. The ten runners-up will each receive a superb Remington 'Lektronic' Shaver and there will be numerous consolation prizes of parcels of Waddington's famous games.

Entry forms for the "GO" competition may be obtained from most toy shops and stores or from the November issue of *GO!* Magazine.

"GO" itself is an ideal family game and may be played by from two to six players. The object is for players, starting from London, to "visit" as many of the principal cities of the world as they can — New York, Moscow, Tokio, Sydney, Buenos Aires, etc.—in as short a time as possible, purchasing a souvenir of each place visited and returning to London when an agreed number of souvenirs have been obtained. You can imagine yourself as a world-wide traveller returning home with a trunk full of mementoes paid for in dollars, roubles and pesos, for your "money" is provided with this fascinating game.

"GO" offers travel by air, rail, road or sea—a wonderful chance to enjoy the excitement of world exploration without leaving your own fireside. It costs 29s. 6d., including tax.

* * * *

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MECCANO HEAVY VEHICLE CHASSIS

WIRRAL READER'S FINE MODEL

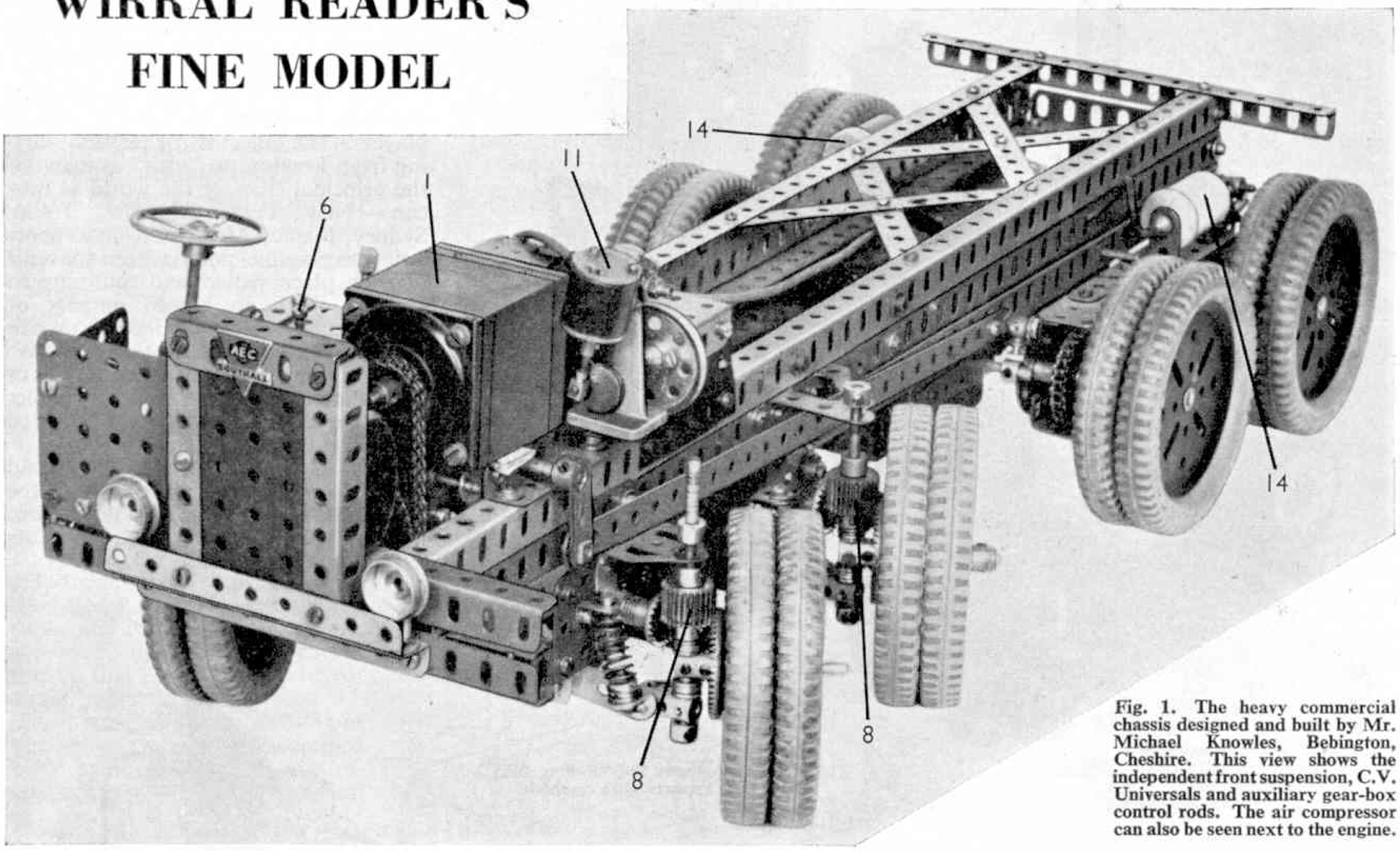


Fig. 1. The heavy commercial chassis designed and built by Mr. Michael Knowles, Bebington, Cheshire. This view shows the independent front suspension, C.V. Universals and auxiliary gear-box control rods. The air compressor can also be seen next to the engine.

TO anyone interested in heavy commercial vehicles, modelling in Meccano, as well as being very enjoyable, can be of great value in assessing the comparative merits of various vehicle designs. These may conveniently be classified in three main categories: the first devoted to orthodox chassis layouts in general use, the second to entirely original ideas, and the third to vehicles basically conventional in arrangement, but incorporating familiar features seldom encountered in the same chassis.

The eight-wheeler illustrated here is a member of this last-mentioned category, and its main features are described here by its builder Mr. Michael Knowles, a skilled Meccano enthusiast who lives in Bebington, Wirral. The chassis should be of considerable interest to advanced model-builders.

By "SPANNER"

The main frame of the vehicle, upon which all the sub-assemblies are mounted, is a 1″ × ½″ channel section structure built up from four 24½″ Angle Girders, and this is flitched with further channels which make it of "E" section for the rear two-thirds of its length. At the front of this chassis frame, the engine is mounted on a bridge girder, being offset ½″ to the nearside. This arrangement allows a little more space in the driving compartment, without materially affecting weight distribution, because the couple created is balanced by that due to the cab base and control gear.

The engine (1) drives through a 2.56:1 chain reduction into the friction clutch which is controlled by a foot pedal (2) mounted in the usual position. The mechanical disengagement linkage provides an 8:1 multiplication in effort between pedal pad and throwout bearing and so ensures light and smooth operation.

The main gear-box, which provides three forward ratios, of 2:1, 3:1 and 4:1, and a reverse of 3.33:1, is mounted behind, and is directly driven by the clutch, and it is operated by a short remote control change-speed lever moving in an "H" gate pattern. In an earlier version of this gear-box installed in a previous model, it was found that keyway rods had only a limited torque capacity, and accordingly their function in this chassis is performed by sliding couplings on the gear-box mainshaft. The main gear-box drives through a ratio 1:1 transposing box (3) and a universally jointed cardan shaft (4), into the two-speed auxiliary gear-box (5), which is controlled by a second lever (6) in the cab. As the ratios of this gear-box are 1:1 and 4:1 a total of 6 usefully spaced forward gears is available, ranging from 2:1 sixth to a 16:1 first gear. The auxiliary gear-box is integral with the rear-wheel drive assembly, which consists essentially of one double-reduction axle, on the ends of which are mounted pivoted chain cases (7) each carrying two Road Wheels. These side-cases also house the final 2:1

reduction and they carry the braking gear. A fully-articulated bogie is thus provided, although naturally its load capacity is somewhat less than that of a genuine compensated two-axle unit.

The front-wheel-drive unit, which is driven by a propeller shaft from the front of the transfer box, can hardly be called a bogie, as it is really a kind of hull, upon which the four front steering wheels are independently suspended by coil springs and Dubonnet linkage.

The driving arrangements are both simple and effective: Only one differential gear is employed, this being in the second axle, and the foremost axle half-shafts are chain driven from it. Intrusion into the F.W.D. unit by the gear-box mainshaft made provision of a front axle differential impossible, while fortunately from the traction point of view, one is definitely undesirable, bearing in mind the limited front wheel movement of ½". To ensure a high tractive effort and to minimise stresses on the differential gear, double reduction gearing is employed at the front axles as at the rear, and the final 2:1 reduction gear is incorporated in the constant-velocity steering universal joints (8). Of the two systems as yet undescribed, namely those of steering and braking, the former will be covered first, as it is the more straightforward.

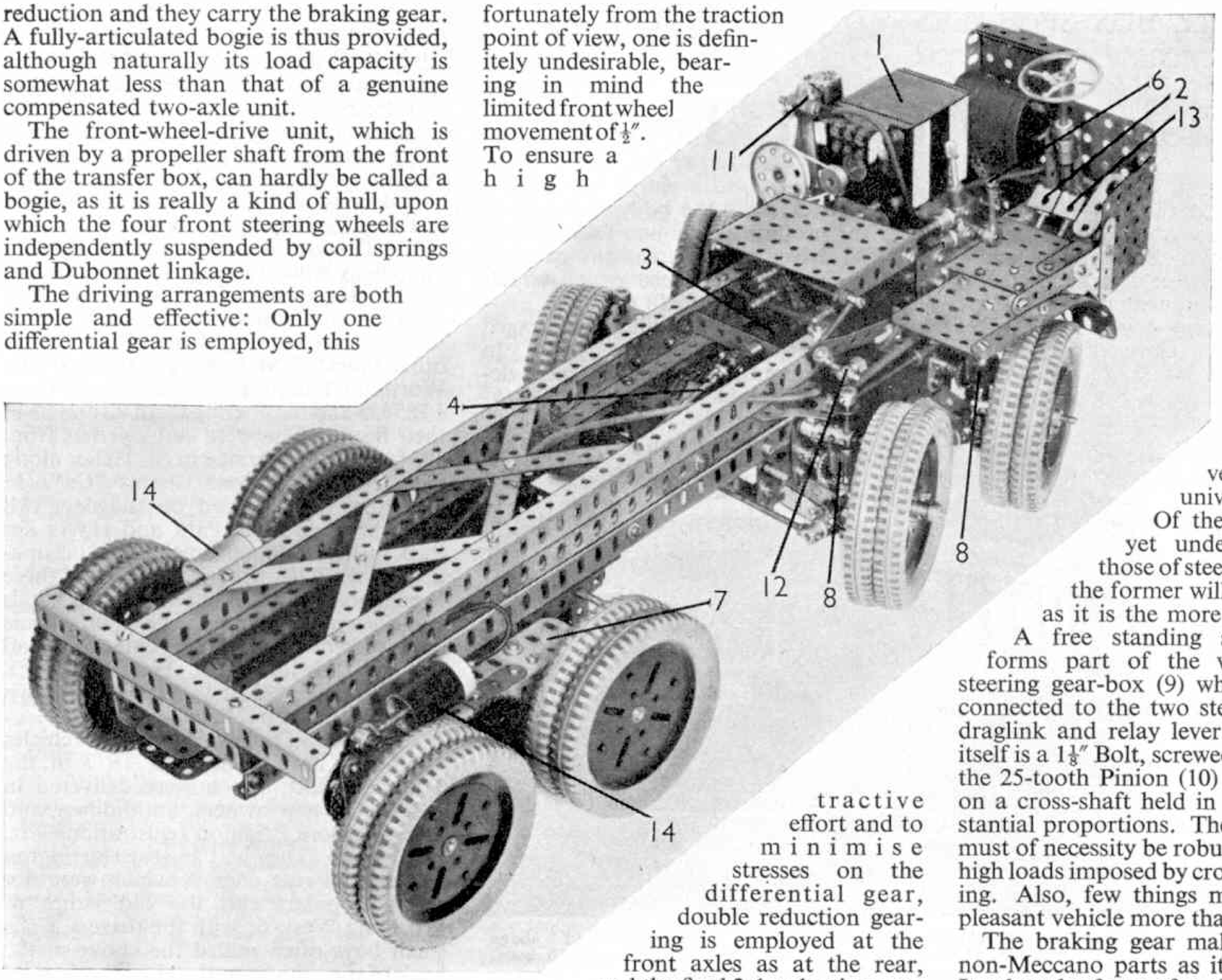


Fig. 2. In this view the driving controls, air pressure braking system and steering and driving arrangements of the front wheels can be seen.

A free standing steering column forms part of the worm-and-pinion steering gear-box (9) whose drop-arm is connected to the two steering axles by a draglink and relay lever. The drop arm itself is a 1⅛" Bolt, screwed into the boss of the 25-tooth Pinion (10) which is located on a cross-shaft held in bearings of substantial proportions. The entire assembly must of necessity be robust, because of the high loads imposed by cross-country working. Also, few things mar an otherwise pleasant vehicle more than vague steering.

The braking gear makes use of some non-Meccano parts as it is air operated. It takes the form of a single-line upright

(*Continued on page 451*)

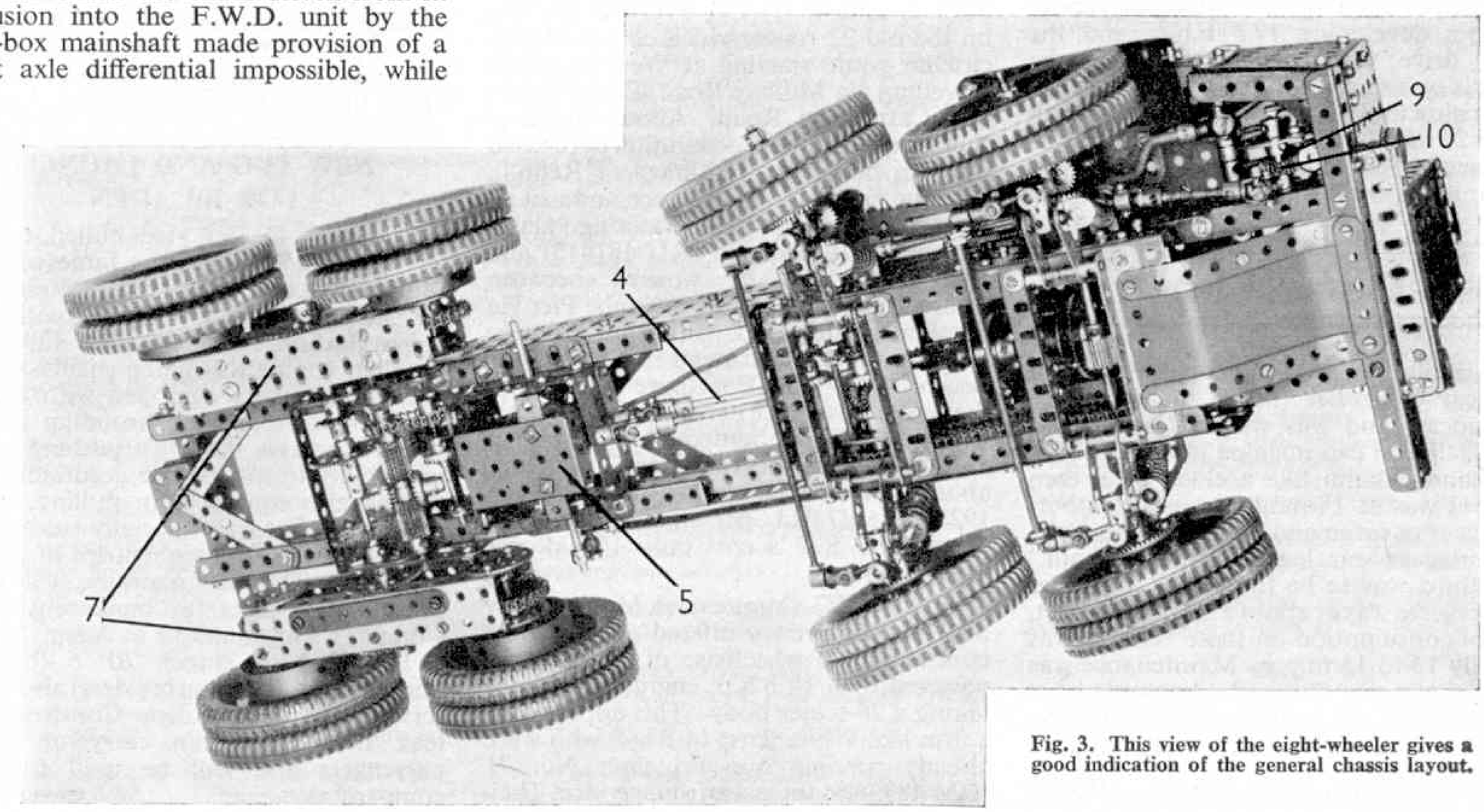


Fig. 3. This view of the eight-wheeler gives a good indication of the general chassis layout.

CALLING ALL BUS SPOTTERS

Vanished Without Trace

By DAVID KAYE

IN the June issue of the *M.M.* I appealed for information about those quaint pre-war vehicles the Shelvoke & Drewry Freighters. Their scope was much greater than I had at first anticipated. The first model built to carry a p.s.v. body was constructed at the close of 1923, and eventually became No. 2 (PX 262) in the fleet of W. R. Gates, a New Zealander, who had begun a service entitled "Tramocars" with another S.D. Freighter (BP 9822) at Easter 1924, between Worthing Pier and Seaview Road.

Before Easter in the following year these two cars had been joined by Nos. 3 and 4 (PX 886/1593). The chassis weighed one and a quarter tons and carried an 18-seater body built by Hickmans, of Balham. There were no windows, but instead blinds could be pulled down by passengers when a south-westerly gale made travelling too uncomfortable along the promenade.

This photograph, reproduced by courtesy of the "Worthing Herald", shows a 1935 vintage S. D. Freighter (APX 237), with a Harrington B26R body, belonging to W. R. Gates of Worthing.

These early Freighters had four-cylinder engines developing 17.5 b.h.p. and the final drive was by worm. Since the chassis was so close to the ground it is not surprising to find that they were fitted with solid 20 inch by 5 inch tyres. Steering was by means of a tiller operated by the driver's right hand, while the gear change lever was similar in appearance to that of a tramcar controller (hence the nickname Tramocar) and was worked by the left hand. If you can imagine the top of that left-hand column like a clock face, then neutral was at 15 minutes past the hour, first gear at seven and a half minutes past, second gear was located "on the hour" and third was to be found at "a quarter to"; reverse was at about 22½ minutes past. Petrol consumption on these vehicles was usually 13 to 15 m.p.g. Maintenance was easy; the engine required oiling only once a week and the gear-box and rear axle needed similar attention every month. These stub axles were likely to snap off, but little damage was usually done when this occurred since the bodywork was so near the ground that it just "settled", as one old driver told me. In any case the maximum speed of these early models was confined to a mere 18 m.p.h.

Their success at Worthing encouraged other operators to order Freighters. In 1925–6 Plymouth Corporation took delivery of six Freighters with 20-seat Hickman and Vickers bodies—Nos. 22–4 (CO 8190–2) and 45–7 (CO 9517–9)—for use on the old 22 route, which consisted of a circular route starting at West Hoe and travelling via Millbay Road, Exeter Street and Cattedown Road. About the same time Bournemouth Corporation purchased six with bodies by Chalmers of Redhill, with the normal dual entrance and exit so greatly loved in that watering place. Bournemouth cars 7/8 (RU 1814/5) and 9–12 (RU 2266–9) worked between Bournemouth Pier and Boscombe Pier via the Undercliff Road. For this privilege the Transport Department had to pay the Beach, Cliffs and Foreshore Committee the sum of twopence per car mile travelled, which in 1927 amounted to no less than £614. Whereas the 16-seater Guy "Runabouts" introduced by the Corporation in 1923 cost 27.02d. per mile to run, the economical S.D.'s cost only 16.39d. per mile to operate.

At the 1927 Commercial Motor Show Shelvoke & Drewry offered a lengthened chassis with a wheelbase of 13 ft. 3 in., powered by a 14 b.h.p. engine capable of taking a 26-seater body. This appealed to a firm like White Rose of Rhyl, who were already running one Freighter No. 71 (DM 4833) on their sea-front service. They now ordered four more (Nos. 72–5 DM 5266 and 6233–5) with toastrack bodies. After Crosville had taken over White Rose they continued to build up the S.D. fleet with fresh batches in 1931, 1935 and 1938.

Other firms began to see the advantages of these strange, but profitable little buses. Pickton Transport had one with an enclosed body by 1925, while Prices Motors of Dinas Powis purchased a similar model (TX 1506) for operation between Penarth and Dinas Powis in 1928. Clucas Laundry of Douglas, in the Isle of Man, used MN 5598 for staff transport at some times in the day and to carry bags of laundry at other times! J.M.T. bought the first two Worthing Tramocars, re-registering them J 7854/5 and numbering them 22 and 23 in their fleet. These were employed as from 1934 on a town service in St. Helier along with a Guy and some Dennis "Gs". In 1936 they were placed on the new 18B route between West Park and Havre des Pas. In July 1940, during the Nazi occupation of the Channel Islands, one of these Freighters had its body placed on a goods trolley with pneumatic tyres and was pulled by horses between Queen's Road and Weighbridge (via Halkett Place). However, this vehicle was soon withdrawn through lack of public support.

The last S.D. public service vehicles appear to have been Nos. 16/7 in the Tramocar fleet, which were delivered in 1938 to the new owners, Southdown, and therefore bore Brighton registrations (viz. FCD 16/7). They had 26-seat Harrington bodies, and rear engines which were not at all popular with the old ladies of Worthing West, or with the drivers, since small boys often pulled the choke at the back of the vehicle, and stalled the engine!

It is a reflection on us all that not one of these 50 unusual buses has survived to be added to the growing collections of vintage and veteran p.s.v.'s. I am still gathering information on these Freighters, so please let me know as much as possible about them as soon as possible.

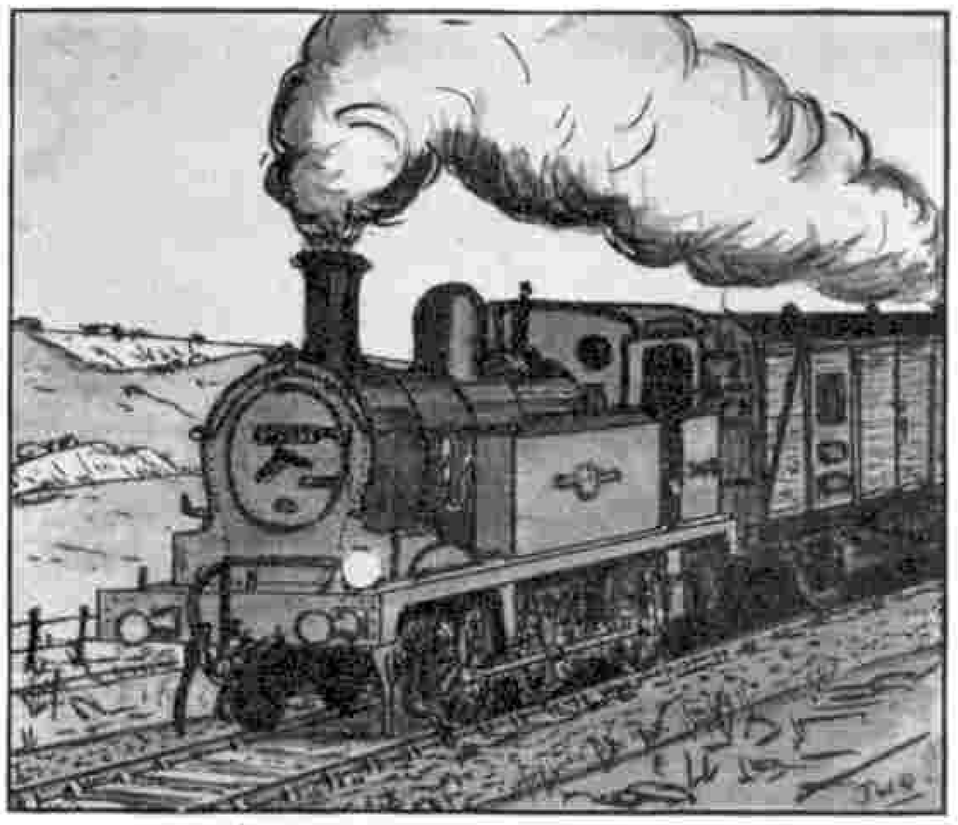
NEW TUG AND LAUNCH FOR BP ADEN

The new 40 feet steel-hulled tug *BP Al Alamiyah* built by James Taylor (Shipping) Ltd., of Shoreham, Sussex, for BP Aden Ltd. began service recently in Aden Harbour. Fitted with a 139 b.h.p. Gardner engine this is the smallest vessel of its kind to be equipped with a Kort nozzle—a propeller shrouding device which increases the tug's pushing power and ability to manoeuvre accurately. Although also equipped for pulling, *BP Al Alamiyah* has a specially developed "pusher" stem with eight strips of vertical fendering. The tug's main use will be for positioning barges for bunkering at the Company's installations at Aden.

The 40 foot launch *BP 6* (built at Shoreham by the same builders) also began service recently at Aden. Constructed in teak the launch can carry up to 23 passengers and will be used to carry company personnel.

HORNBY REPAIR SERVICE

THE service operated by Meccano Limited to expedite repairs to Hornby-Dublo Locomotives and Tenders, Hornby Gauge 0 Clockwork Trains and Clockwork and Electric Meccano Motors has been still further extended in recent weeks. Dealers authorised to offer this service, who are listed below, display a distinctive Accredited Service Specialist sign. Customers may, of course, send repairs to the Service Department of Meccano Limited, at Hanson Road, Aintree, Liverpool 9, if it is more convenient for them.



116–118 Week

ANGUS
Dundee—Brian Sherriff, 93 Victoria Road.

BEDFORDSHIRE
Bedford—H. J. Banks, 23 St. Peter's Street.
Luton—Aeromodels, 59 Wellington Street.

BERKSHIRE
Reading—E.A.M.E.S. (Reading) Ltd., The Model Shop, 24 Tudor Road.
Reading Model Supplies, 1 Hosier Street, St. Mary's Butts.

CHESHIRE
Birkenhead—Birkenhead Model Supplies Ltd., 32 Grange Road West.
Moreton—Mortimer Ltd., 254—260 Hoylake Road.
Neston—J. Bailey, The Model Shop, Parkgate Road.
New Brighton—G. Longworth, 78–80 Rowson Street

CORNWALL
Helston—Eddy & Son (Helston) Ltd., 21 Meneage Street.

CUMBERLAND
Carlisle—R. M. Hill & Sons, 36–40 Castle Street.

DENBIGHSHIRE
Wrexham—Craftoys Ltd., 4 Centenary Buildings, King Street.

DEVONSHIRE
Barnstaple—E. Gale & Son Ltd., Joy Street.
Bideford—E. Gale & Son Ltd., 2–3 Mill Street.
Exeter—John Webber (Sports) Ltd., 50–51 High Street.
Plymouth—F. T. B. Lawson Ltd., New George Street.

DURHAM
Durham—C. T. Applegarth, The Model Shop, 92 Claypath.
Stockton-on-Tees—K. Dean, 41 Bishopton Lane.

ESSEX
Chelmsford—Chelmsford Model Co., Baddow Road.
Colchester—West End Cycle Stores, 65 Crouch Street.
Ilford—Pages of Barkingside Ltd., 19 Broadway Market, Fencepiece Road, Barkingside.
Southend-on-Sea—Alco Supplies, 133 Hamstel Road, Southchurch.

GLAMORGAN
Cardiff—James Lendon, 194 Fidlas Road, Llanishen, The Model Shop, 9 Mill Lane.
Neath—Pearns Ltd., 16 Alfred Street.

GLOUCESTERSHIRE
Bristol—The White Tree Electrical and Toy Bazaar, 28 North View, Westbury Park
Cheltenham—I. Newman (Cheltenham) Ltd., 127–9 Bath Road.
Cirencester—S. E. Trinder, The Model Hangar, 71 Cricklade Street.
Gloucester—O. & N. Ash, 106 Westgate Street.

HAMPSHIRE
Bournemouth—Deppers, 918 Wimbourne Road.
The Sports Shop, 14 Seymoor Road, Westbourne.
Portsmouth—Robin Thwaites Ltd., The Hobby Shop, 28 Arundel Street.
Southampton—H. I. Dowding & Son Ltd., 265–267 Shirley Road.
Woodkraft Supplies Ltd., 38 Northam Road.

HERTFORDSHIRE
Royston—H. C. Green, 25 High Street.
St. Albans—Bold and Burrows Ltd., 12–18 Verulam Road.
Welwyn Garden City—H A. Blunt & Sons Ltd., 38 Fretherne Road.

KENT
Beckenham—Furley & Baker, 69 High Street.
Bexleyheath—W. J. & H. G. Jennings Ltd., Department Store, Broadway.
Canterbury—Barretts of Canterbury Ltd., 2 St. George's Street.
Gillingham—J. R. Baker (Gillingham) Ltd., 14 Canterbury Street.
Maidstone—F. T. Gilbert & Son, Street.

LANARKSHIRE
Glasgow—Caledonia Model Company, 478 Argyle Street.
Clyde Model Dockyard Ltd., 22–3 Argyle Arcade.
Glassfords, 89 Cambridge Street, C3.

LANCASHIRE
Ashton-under-Lyne—Ashton Model Supplies, 201 Old Street.
Darwen—Arnold Leaver, 65–67 Duckworth Street.
Liverpool—Lucas's (Hobbies) Ltd., 7 Tarleton Street
Rushworth, The Model Railway Shop, 137a Kensington.
Manchester—Bassett-Lowke Ltd., 28 Corporation Street
The Sports Depot (Manchester) Ltd., 4–10 Princess Road, Moss Side.
Wigan—J. J. Bradburn, 76 Market Street.

LEICESTERSHIRE
Leicester—North's Toy and Model Stores, 5 Melton Road.
Loughborough—Clemersons Ltd., 43 Market Place.

LINCOLNSHIRE
Cleethorpes—H. Loftis, 196 Grimsby Road.
Lincoln—S. A. Nobbs & Son Ltd., 2 Norman Street and 16 Sincil Street.

LONDON
London—Allan Brett Cannon Ltd., 32 Railway Approach, London Bridge Station, S.E 1
H. A. Blunt & Sons Ltd., 133 The Broadway, Mill Hill, N.W.7.
Hamblings (Models) Ltd., 10 Cecil Court, Charing Cross Road, W.C.2.
Model and Tool Supplies, 604 Kingston Road, Raynes Park, S.W.20.
Models (City) Ltd., 2 The Arcade, Liverpool Street Station, E.C.2.
Palace Model Shop, 13 Central Hill, Upper Norwood, S.E.19.
W. & H. (Models) Ltd., 23 Paddington Street, Baker Street, W.1.

MIDDLESEX
Edgware—Cresta, 1 Cinema Parade, Manor Park Crescent.

MIDLOTHIAN
Edinburgh—Harburn's Hobbies Ltd., 116 and 122–124 Leith Walk.
Messrs. Donray, 302 Morningside Road.

NORTHAMPTONSHIRE
Peterborough—Oliver Carley, 35 Broadway.
Wellingborough—Littlefolk, 24 Market Street

NORTHUMBERLAND
Whitley Bay—The Whitley Model Shop, 67 Park View.

NOTTINGHAMSHIRE
Nottingham—Beecroft & Sons Ltd., 16 Pelham Street.
Gee Dee Ltd., Friar Lane and Goose Gate.

OXFORDSHIRE
Oxford—A. S. Rising, 243 Banbury Road

PERTHSHIRE
Perth—Bob Croll, 75 High Street.

SHROPSHIRE
Oswestry—Vaughans, 56 Beatrice Street.

SOMERSET
Bath—Pram and Toy Shop Ltd., 22–23 Southgate Street.
Cyril Howe's of Bath Ltd., 15 Abbey Churchyard.
Taunton—Westlakes (Cycles) Ltd., Station Road.
Yeovil—H. J. Perris (Retail) Ltd., 9–11 Princess Street.

STAFFORDSHIRE
Burton-on-Trent—J. W. Belfield, 2–4 and 12–14 West Street and Market Street, Swadlincote.
Cradley Heath—Dunns (Cradley Heath and Dudley) Ltd., 65 Lower High Street.
Stafford—John Bagnall, South Walls Road.
Stoke-on-Trent—John Pepper (Hanley) Ltd., 61–65 Piccadilly.
Walsall—S. H. Granger, Caldmore Models, 108 Caldmore Road.
Wolverhampton—A J. Chamberlain, 39 Darlington Street.

SURREY
Coulsdon—R. Wills (Scientific Hobbies) Ltd. 92 Brighton Road.
Croydon—Priors, 107 High Street.
Guildford—Guildford Dolls Hospital Ltd., 13 Swan Lane.

SUSSEX
Crawley—Beaumont Sports Ltd., 26 Broadwalk.
Crowborough—Regent House, High Street.
Shoreham-by-Sea—Adur Valley Press, 16 John Street.
St. Leonards-on-Sea—A. Hammonds, 5/6 Marine Court.

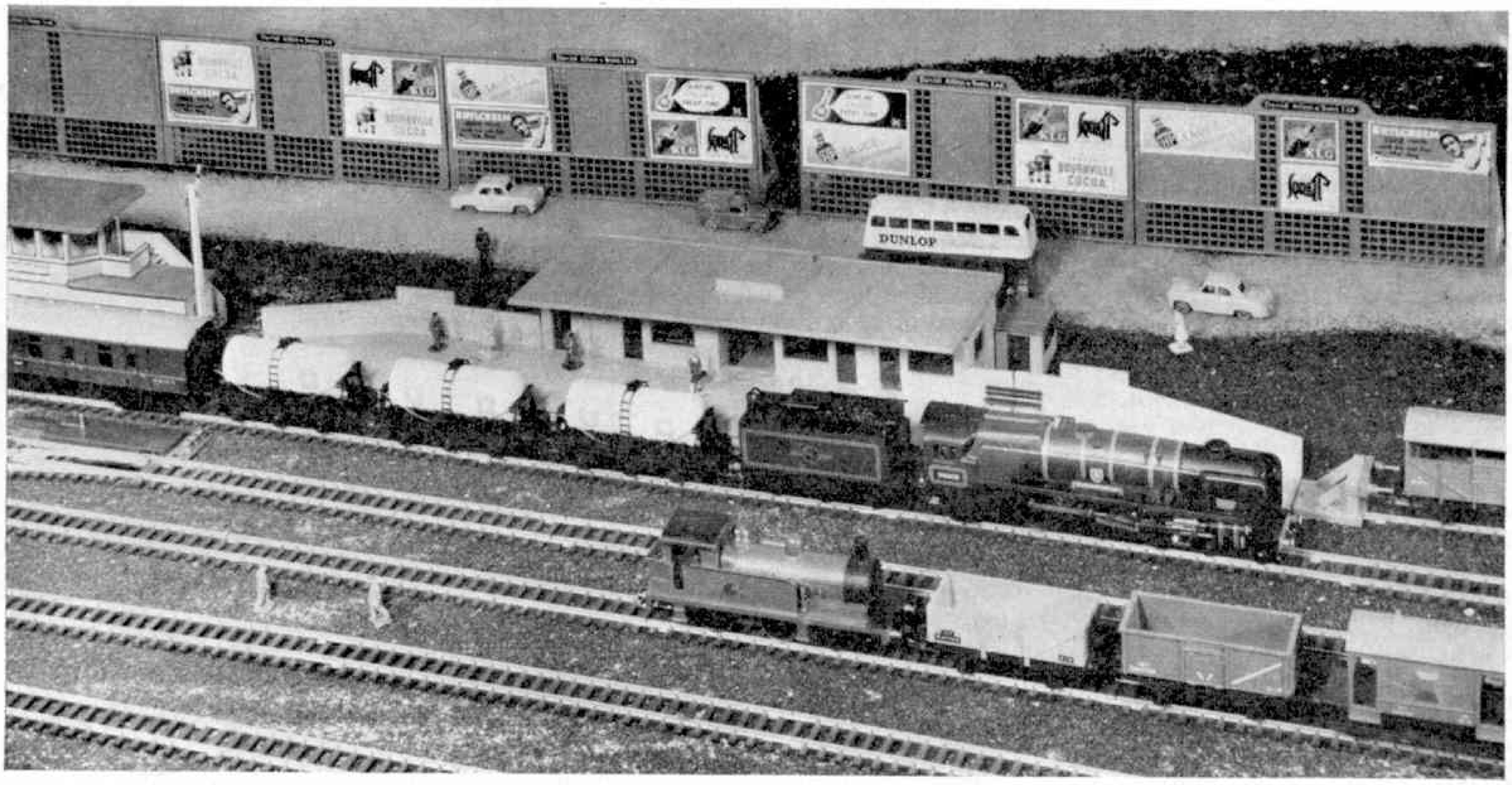
WARWICKSHIRE
Birmingham—Bearwood Model Supplies, 53 Parade.
Hornton's (Models & Toys) Ltd., 32 Stephenson Street, 2.
The Perrys 769 Alum Rock Road, Ward End.
J. Williams, 51 Comberton Road, Sheldon.
Sutton Coldfield—W. Gill & Son, The Parade.

YORKSHIRE
Bradford—Bradford Model Railway Centre Ltd., 202 Keighley Road, Frizinghall.
W. Carter, 15 Bridge Street
Leeds—King Charles Sports Centre, 18 and 20 King Charles Street.
Sheffield—Fred Shaw, 42 Church Street.
The Redgate Co. (Sheffield) Ltd., Moorhead.

CHANNEL ISLES
Jersey—George D. Laurens, 3/5/7 Queen Street.

EIRE
Dublin—Southern Model Railway Co., Lower Leeson Street

NORTHERN IRELAND
Belfast—The Model Shop, 36 Wellington Place.
Thornton & Co. Ltd., 40/42 Donegal Place.



Traffic Working With New Wagons

Hornby Railway Company

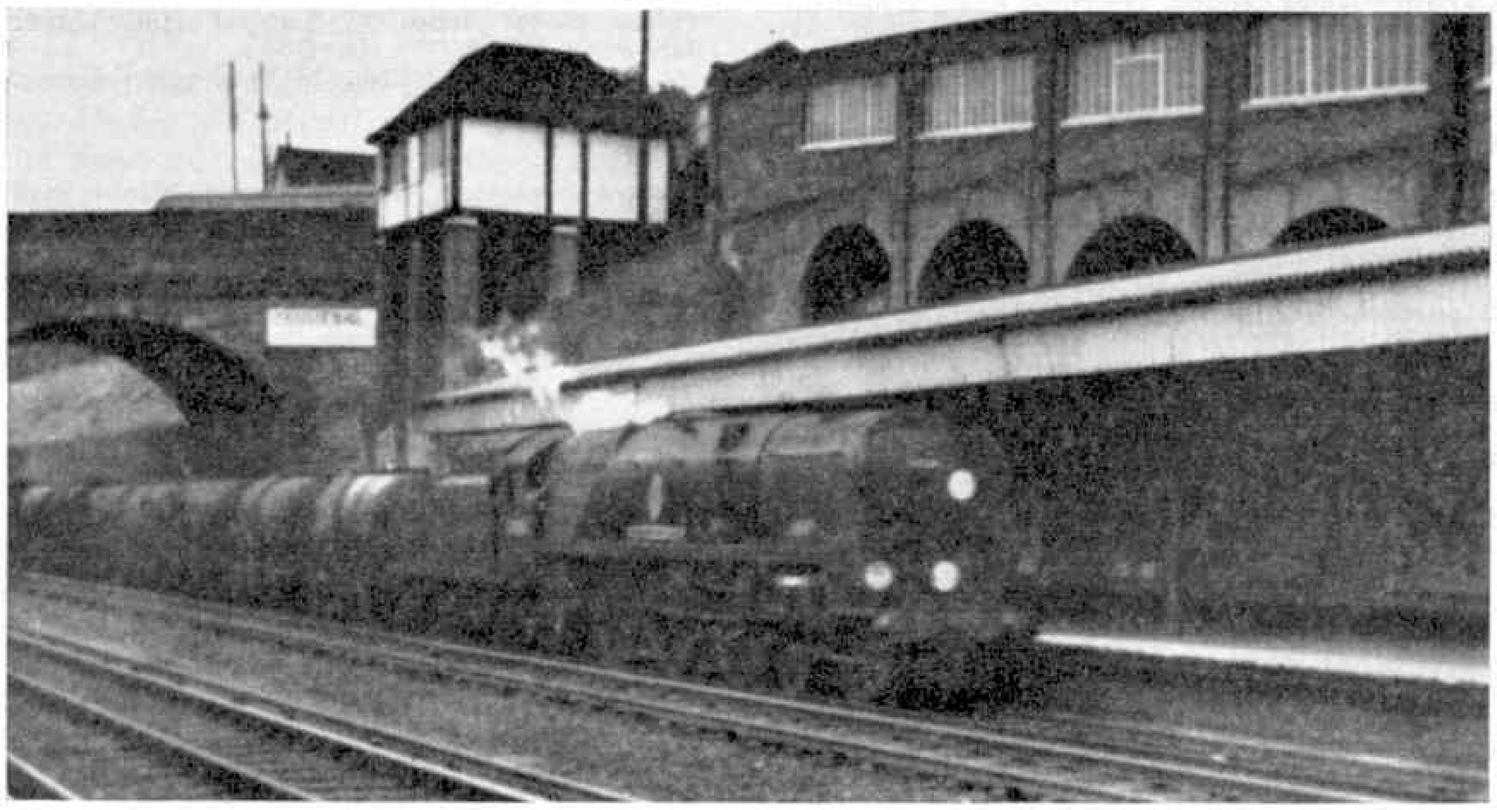
By the Secretary

A MONTH or two ago, I provided readers with brief notes on four new Hornby-Dublo wagons then becoming available, but at the time space did not permit me to give much indication of their uses in your train working schemes. In our September chat, however, I was able to give you some brief operating details in connection with No. 4657 United Dairies Milk Tank Wagon. These I am now able to follow up with the picture you see below of a train of tank wagons, of the kind represented by the Hornby-Dublo vehicle, returning empty. It is the 3.54 p.m. Clapham Gate to Exeter Central, calling at principal stations, in charge of a West Country class 4–6–2 locomotive.

Such trains do not often engage the attention of railway photographers, so that it is fortunate that our reader C. J. Leigh, of Staines, was at hand at Weybridge when the train came along. The photograph shows just the sort of formation that can be made up with Hornby-Dublo equipment—as, indeed, the upper picture indicates—and I am sure that both illustrations will be of considerable interest to many of you.

Another of the new introductions referred to in our earlier talk was No. 4656 Mineral Wagon, finished in bauxite brown. As you know, this colour indicates that the wagon represents one of the many similar vehicles in actual practice fitted for power braking. In this form they are ideal for operating in "solid" or block coal trains consisting of the one type of vehicle only, fitted thoughout with power brakes. Trains of this kind are being operated in increasing numbers, conveying their loads intact from the colliery or concentration yard to destination. The latter may be a yard or depot operated by large-scale coal distributors, by whom local delivery by road is arranged. On the other hand industrial plants where continuous processes are carried out need regular supplies of fuel, and block train loads for such consumers form an important aspect of rail traffic.

There are, therefore, plenty of ideas you can follow up in the running of trains including the No. 4656 Mineral Wagon.



Model and prototype—a Hornby-Dublo West Country class locomotive (above) hauls a train of Milk Tank Wagons in similar formation to that of the real train, shown below. The lower illustration is from a picture by C. J. Leigh.

It is possible to use it, too, in conjunction with its earlier, grey-finished counterpart No. 4655. Most Hornby-Dublo railways are bound to have at least one of the last-mentioned type of wagon already in use, and a "partially fitted" train of both kinds will be quite reasonable.

On extensive layouts there will probably be a fair amount of scope for the arrangement of at least one siding for industrial purposes, even though the coal-handling installation and the plant buildings themselves may only be represented on a scenic backdrop.

To a certain extent, similar conditions apply to the use of the No. 4658 *Prestwin* Silo Wagon and the No. 4685 I.C.I. Caustic Liquor Bogie Wagon. These usually run between points where special loading and unloading facilities are laid on. While they can be found in block train formations, the inclusion of an individual wagon in a freight train of more general character is not unknown. This scheme would be particularly suitable for Hornby-Dublo-conditions. It might not be too easy for the average Hornby-Dublo train owner to simulate the special installations necessary in connection with the loading or unloading of such types of wagons, but it would be simple enough to arrange for them to be shunted out of sight under cover of a suitable building, or at least under an awning projecting from a structure representing an industrial plant. Real *Prestwins* are used not only for carrying special grades of sand for industrial purposes, but powdery chemicals of various kinds also may be conveyed.

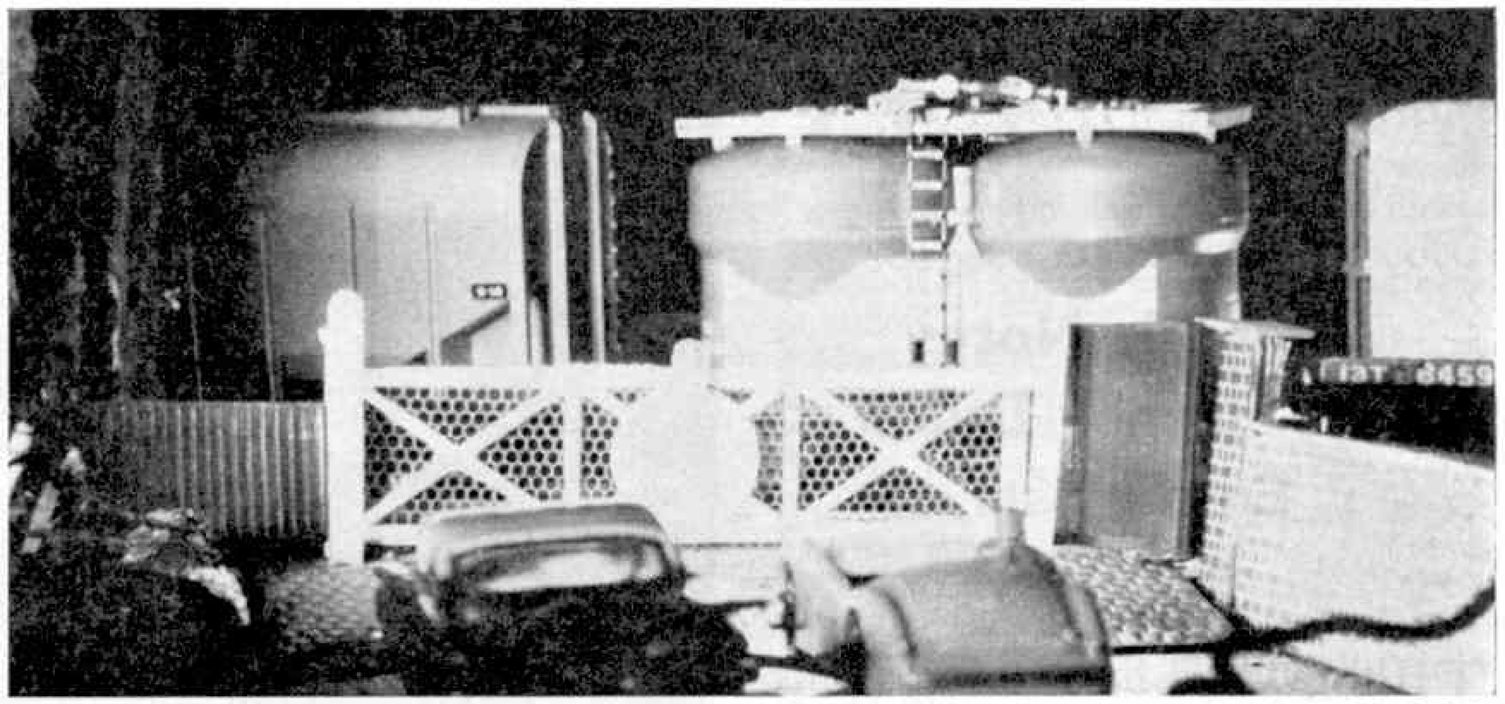
Important Role

The No. 4685 I.C.I. Caustic Liquor Bogie Wagon is an effective representation in miniature of a vehicle that serves an important role in industry. A fleet of more than 100 of these wagons is operated by the owning organisation. These giants carry 40 tons and each has a total loaded weight approaching 65 tons. Therefore it does not take many of these to make quite a respectable train load!

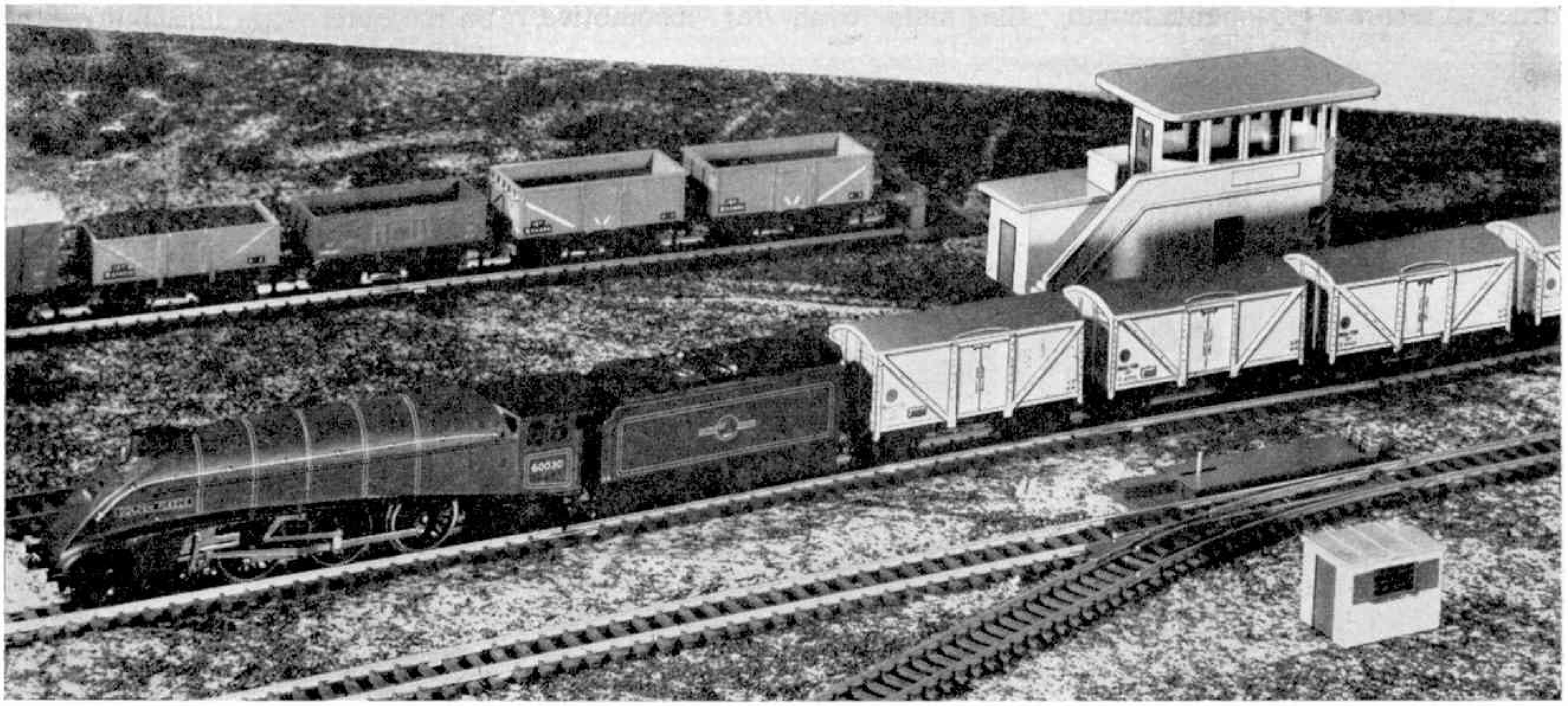
The product they carry is caustic soda in solution, yet another instance of liquids in bulk transit commonly practised today. Caustic soda is used for many purposes in industry, such as the making of soap, and paper, and in the manufacture of rayon. Therefore, it is possible to find the real wagons in all parts of our railway system, so there is plenty of opportunity for the use of the Hornby-Dublo representation of these big tankers.

Either singly or in trains of several coupled together, the Hornby-Dublo I.C.I. Caustic Liquor Bogie Wagon is a distinctive piece of rolling stock that will add to the variety of any layout on which it is in service. A train composed of several of these wagons would in fact represent admirably a typical regular train such as that running loaded in the early hours of the morning from Runcorn to Holywell Junction, L.M.R., with a corresponding return trip empty later. With a Hornby-Dublo 2–8–0 at its head and a B.R. or L.M.R. Goods Brake Van bringing up the rear, a formation of several of these big tank wagons would make an impressive sight on a 00 gauge track.

The picture below reminds us of another special vehicle, the No. 4300 Blue Spot Fish Van familiar in the range for some time now. This vehicle represents the vans fitted with roller bearing axleboxes for the Aberdeen–London express fish traffic by the East Coast route, and distinguished by a blue spot on each side denoting their special character. Of course the Hornby-Dublo Blue Spot Fish Van does not have roller bearings, but it does carry the blue spot marking. Those in our picture represent an express fish train, and they are certain of rapid transit behind the streamlined 4–6–2 *Golden Fleece*.



This unusual and cleverly-posed "night time" study by S. F. Page of St. Albans shows a Hornby-Dublo freight train, which includes a "Prestwin" Silo Wagon and a Bulk Grain Wagon, passing over a level crossing while road traffic waits patiently.



A Hornby-Dublo "Golden Fleece" locomotive hauls a miniature representation of a Blue Spot fish train—a neat and uniform load.

"LAYOUT MAN" WRITES ABOUT:

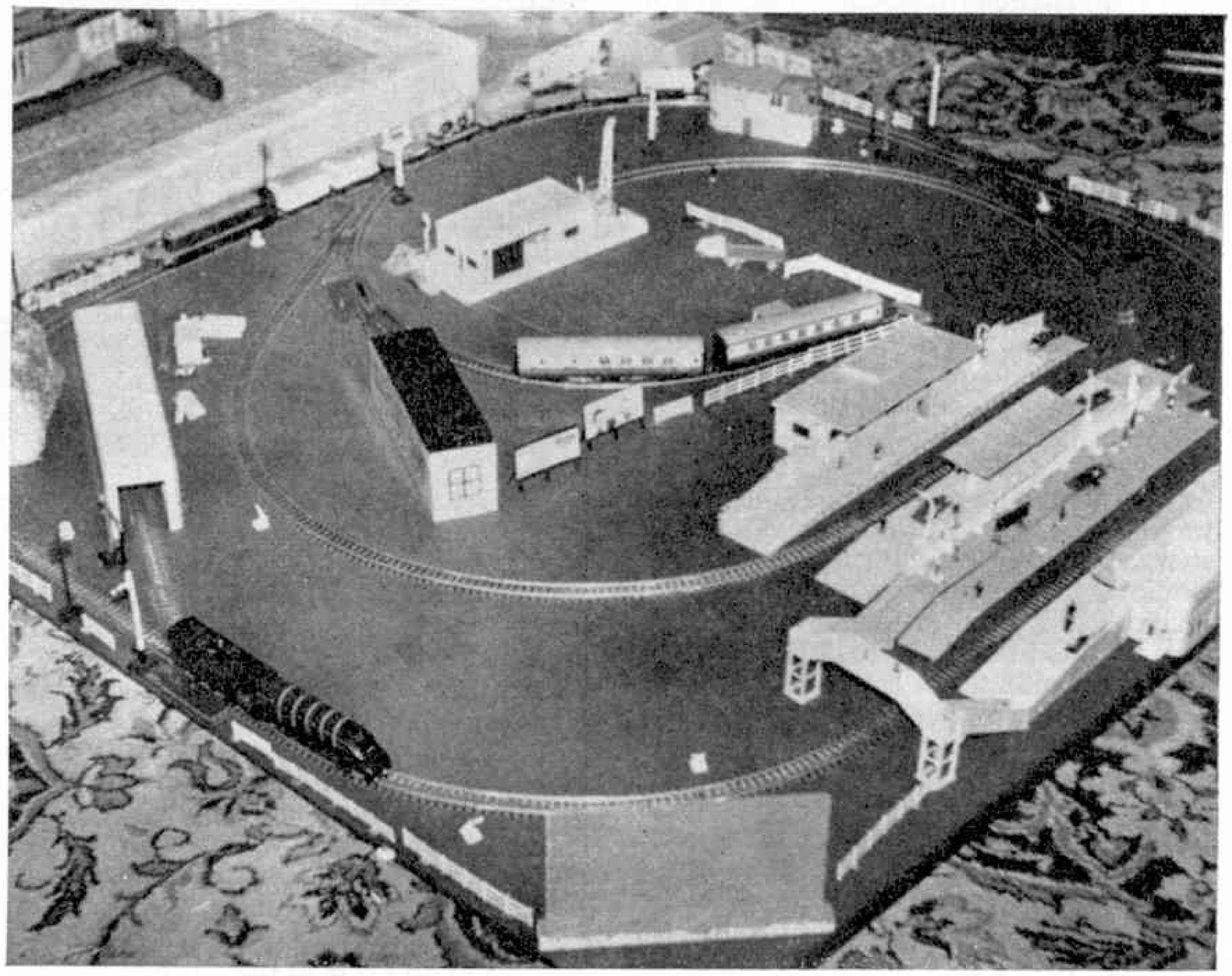
A MATTER OF SPACE

Monthly Notes For Hornby-Dublo Enthusiasts

THIS month I have three layouts for you to see, of which the first two, shown on this page, have various aspects in common, although one is Two-Rail and the other Three-Rail, one temporary and the other of more permanent character.

The first layout, which is the Two-Rail one, shown in the upper picture here, is that of J. Bellingham, of Annan, Scotland. The railway is laid on a board so that the track has the firm level base which is a great help towards good running. The board itself appears to be jointed, in two sections, judging by the original photograph, and this would be of convenience from the storage point of view when the railway is not in use.

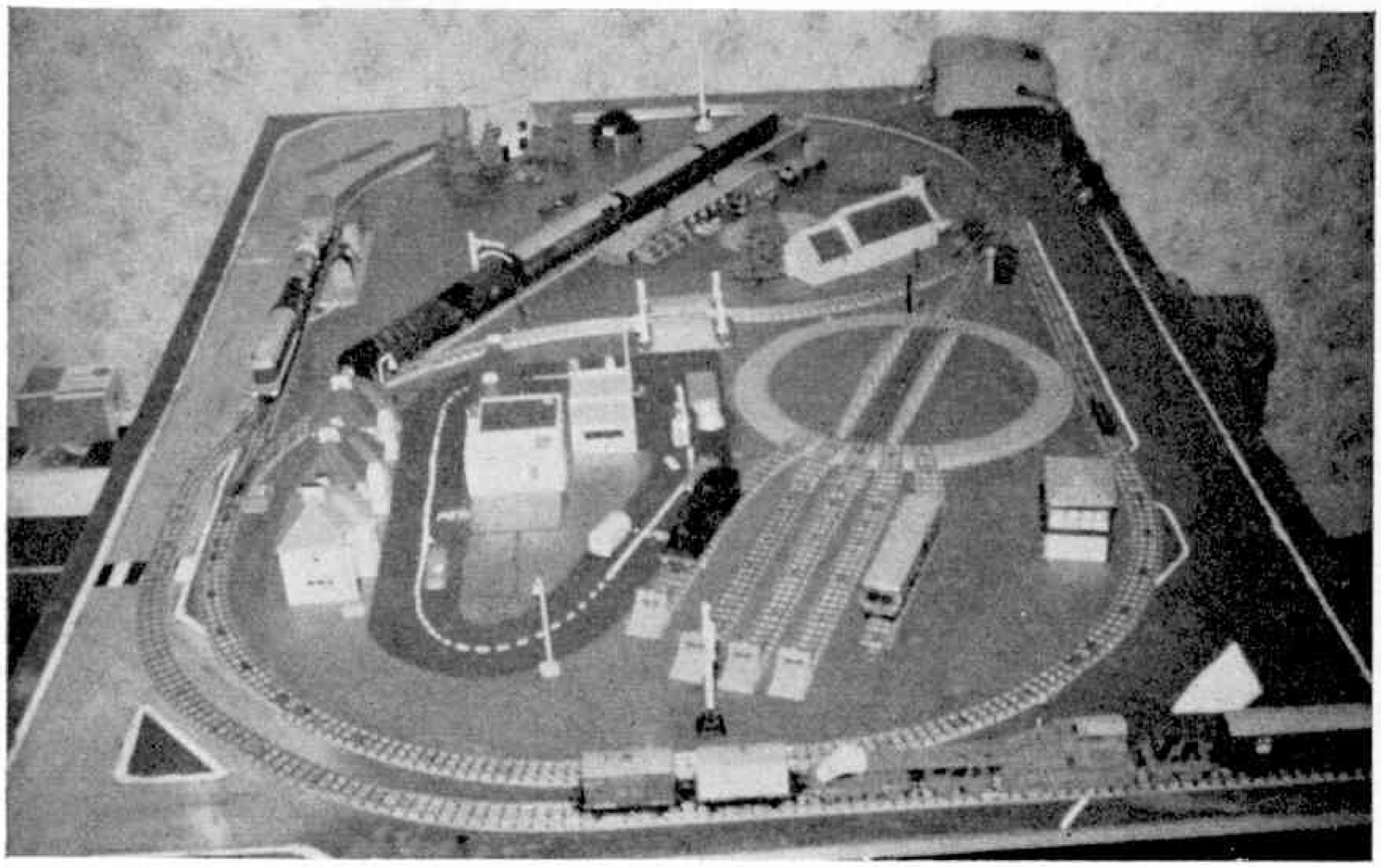
The complete board measures five feet by four feet six inches, and the main oval track follows the shape of the board fairly closely in order to secure a reasonable length of run, as is usual on layouts of moderate size. As the owner remarks, there must be many people in a similar position to himself in being short of space in the house for a really big layout. Still, good use has been made of the space within the main oval, for locomotive, carriage and wagon sidings are available as well as an inner running loop, and for its size the layout can boast of good provision in the way of stations.



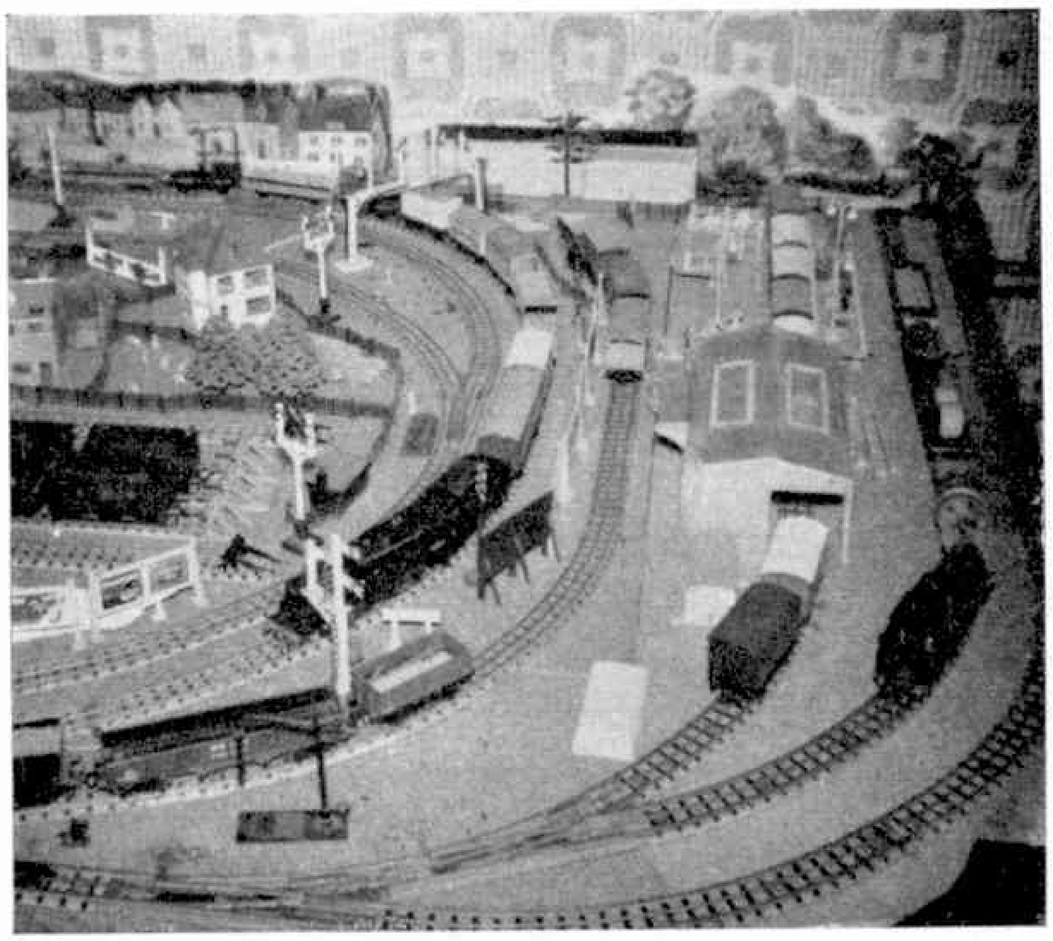
A view of the attractive Hornby Dublo Two-Rail layout of J. Bellingham, of Annan, referred to on this page.

There are two-platform arrangements for passenger trains, not only on the outer main line, but on the inner loop as well. After passing through the station this loop throws off a branch leading round to a goods depot, where it ends in a buffer stop. From the loop also two other spurs are developed, and on one of these in our picture you can see Coaches standing. The other is led into the engine shed building with the dark roof, which is clearly seen almost in the centre of the picture.

There is yet another siding on the layout to be accounted for, that on the left of the picture leading to a second engine shed to which the 4–6–2 streamlined



The general features of the Hornby-Dublo Three-Rail layout of P. Cheeseman, of Welling, are well shown in this picture. The diesel-hauled freight train is about to enter the siding, so that the express waiting to leave the platform can make its way on to the main line.



Peter Smith, of Alford, Lincs, has an effective Hornby-Dublo Three-Rail layout. Here is part of it, on which freight train activities are shown.

locomotive appears to be making its way. While this move is in progress the diesel-hauled freight train in the background is waiting for the road to be cleared for it.

The stations and platforms are the standard Hornby-Dublo equipment, but some of the lineside features are of home construction. One particularly interesting item is the tunnel, part of which just shows on the extreme left-hand edge of the illustration. This is actually formed from a stout log of wood through which a channel has been cut to accommodate the track. The bark on the outside of the log forms a suitable rough exterior for the tunnel. I can well imagine that driving this particular bore was quite an undertaking.

The second system, in the lower picture on page 458, is the Three-Rail layout of P. Cheeseman, of Welling, Kent. Here again good use has been made of the inside area of the layout, the two sides of the main oval being joined by the type of reverse loop connection that will be familiar to many of you. The railway can, in fact, be considered as a development of the system shown in Fig. 15 of the Hornby-Dublo Three-Rail layouts booklet, modifications having been introduced by the owner to meet his particular requirements.

This layout is arranged in permanent fashion on its baseboard, the size of which I estimate to be about six feet six inches by four feet, judging by the way in which the booklet system referred to has been modified.

Here again a diesel-hauled freight train is involved in the movements in progress. The Bo–Bo Diesel on the left-hand side of the layout is about to enter the siding that runs down into the foreground of the picture, where the Breakdown Crane is stationed. Once the freight train is off the main line the passenger train standing at the platform in the inner part of the layout will be able to start its journey.

The permanent arrangement of this layout on its baseboard provides good scope for lineside effects and you will note that a miniature road system connects up with the Level Crossing situated in the middle of the S-shaped reverse loop section. The locomotives, three in number, a "Duchess" 4–6–2, a Bo–Bo Diesel and a 0–6–2 Tank, are well catered for on this layout. As you can see, the Hornby-Dublo Turntable is used to advantage and there are five off-going tracks on which the engines can stand between their various turns of duty.

(*Continued on page 467*)

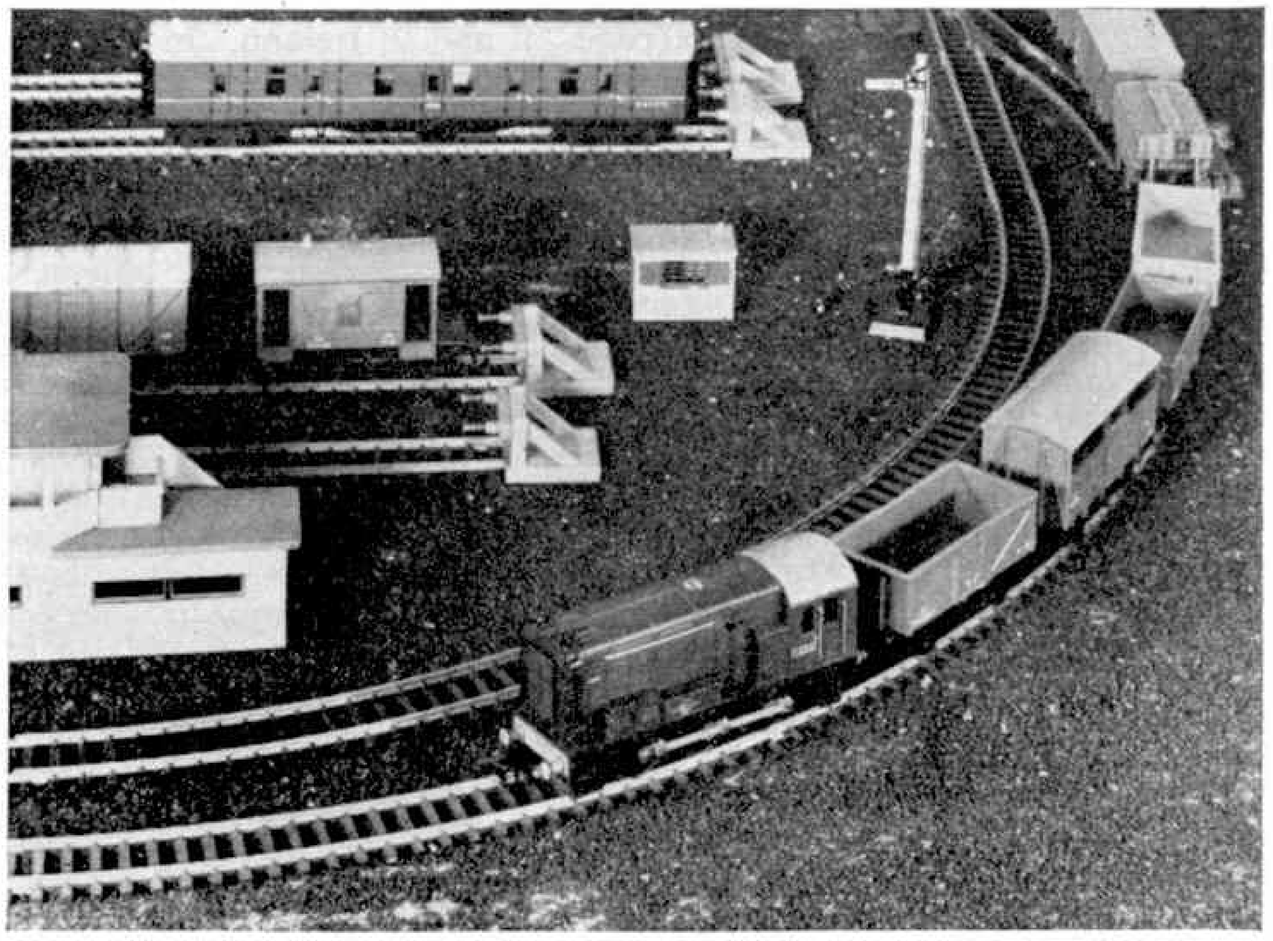
DOUBLE-TRACK WITH DIAMOND CROSSING

THE interesting track formation shown in our diagram this month consists of a double oval main line with two groups of sidings. It is designed to fit on a baseboard measuring nine feet by five feet six inches, and this space will allow for the accommodation of the two control units and any necessary switches which might be included for operating electrical accessories. The two control units allow of independent operation of two trains, one on each main track, and both trains can run at the same time and be started or stopped at will.

The lower group of sidings is accessible from both the inner and outer main tracks, using the Diamond Crossing in the case of trains requiring to enter the sidings from the outer track. The middle group of sidings forms, in effect, a small marshalling yard where a train can back in from the main line and the engine can dispose of the vehicles by means of the Uncoupling Rails. The two sidings close together in the centre of the layout are engine shed tracks, on which a Hornby-Dublo Two-Road Engine Shed can be provided.

The layout will allow at least four locomotives to be accommodated, but only two can run at a time. Isolating sections have been provided on the lower main lines, so that an engine can stand between a Single and Double Isolating Rail on either track while another engine performs a shunting movement which necessitates entering the main line. The

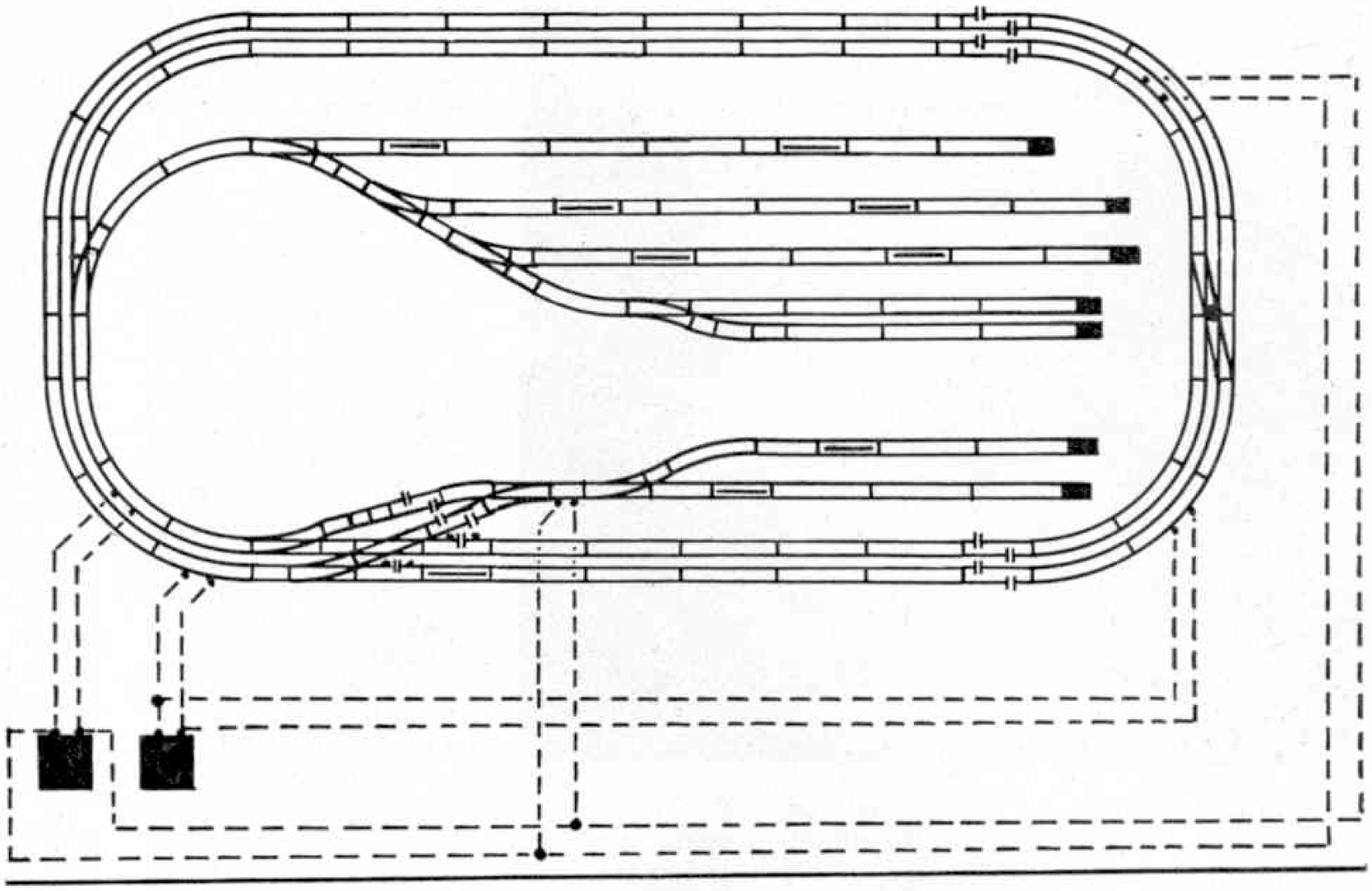
"LINESMAN'S" POPULAR FEATURE ON TWO-RAIL

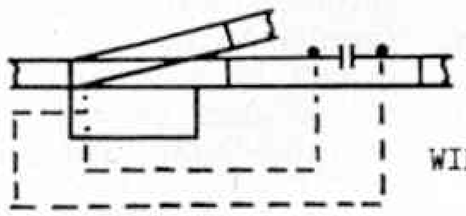


A 0–6–0 Diesel Shunting Locomotive makes a trip with a mixed freight train along the main line of a Hornby-Dublo Two-Rail layout.

ITEMS REQUIRED

14	Curved Rails	2710
10	Curved Rails, Large Radius	2719
2	Curved Terminal Rails with Suppressor	2714
2	Curved Terminal Rails with Suppressor, Large Radius	2721
2	Curved Half Rails	2711
7	Curved Quarter Rails	2712
50	Straight Rails	2701
10	Straight One-Third Rails	2703
1	Straight One-Third Terminal Rail with Suppressor	2708
2	Straight Short Rails	2706
9	Straight Two-Third Rails	2702
2	Straight Two-Third Single Isolating Rails	2738
6	Straight Two-Third Double Isolating Rails	2739
1	Left Hand Diamond Crossing	2735
8	Switch Points, Left Hand	2729
3	Switch Points, Right Hand	2728
9	Uncoupling Rails	2745
7	Buffer Stops	2450
2	Power Control Units	





WIRING OF SINGLE ISOLATING RAIL

wiring of each Single Isolating Rail should be as shown in the small diagram.

Although the Points shown in the diagram are hand-operated, Electrically-Operated Points can be used if desired. These would really be an advantage, as their provision would avoid the operator having to lean over, or walk round the layout to set Points remotely situated from the control centre.

Note particularly that the lower group of sidings has its own Terminal Rail and this feeds current not only into the sidings themselves, but also into the Points giving access to the main lines. It is essential that nylon fishplates be fitted to the curved arms of the Points forming a crossover from one main track to the other, otherwise a short circuit will occur. The position of the nylon fishplates is indicated by a black dot on the diagram.

A NEW RAILWAY BOOK

As might be expected from its 360 pages, **Pullman in Europe** by George Behrend, M.A., (Ian Allan, 42/–), is a comprehensive work. It is not a dry history, but tells its interesting story in an easy manner. It is obvious that a great deal of research has been involved in its preparation, but this does not prevent it from presenting us with the results in an extremely entertaining form. *Pullman* has long stood for something special in the way of service to the railway traveller, so much so that apart from the railway vehicles known as Pullman Cars, with their rich livery and distinctive lettering, the word has been applied, incorrectly perhaps, to various other things, to denote a special quality.

Pullman Car operation owes its inception to an American, George M. Pullman. Following their success in the U.S.A. Pullmans were introduced into railway services in this country, and later into Europe. So the author traces the history of Pullman Car services in Great Britain and in Ireland. In addition, a couple of chapters are devoted to Pullman activities and services in European countries. Not only are the facts of this fascinating story presented, but the cars involved are themselves described, with numerous references to individual vehicles, many of which underwent several transformations in the course of their careers.

In addition to this interesting aspect, we are taken behind the scenes of Pullman Car operation. How the various Pullman trains are made up is described; the staffing, victualling and servicing arrangements are also dealt with, and one learns what happens to the cars when their day's work is over. Clearly, a high degree of organisation is necessary to maintain the characteristic standards of Pullman service and this aspect of operating Pullman Cars has a chapter to itself.

Whether one is a Pullman traveller or not, the chapter on how to use Pullman Cars is instructive, particularly as there is nowadays no official guide or handbook on this sort of thing to replace *The Golden Way*, a Pullman publication not seen since 1940.

The description of a visit to the Pullman workshops at Preston Park near Brighton, where Pullman vehicles are overhauled and reconstructed, is among the book's many attractive features. Personalities connected with the Pullman Car Company over the years are noted in another chapter, and this sort of "family history" adds considerably to the interest of the book. Illustrations, prepared from official and other sources, are plentiful, and a complete series of tables provides details of all Pullman Cars that have operated in this country since their original introduction on the former Midland Railway in 1874. These tables, in conjunction with the text and separate notes, constitute a veritable mine of information, and there is a useful index.

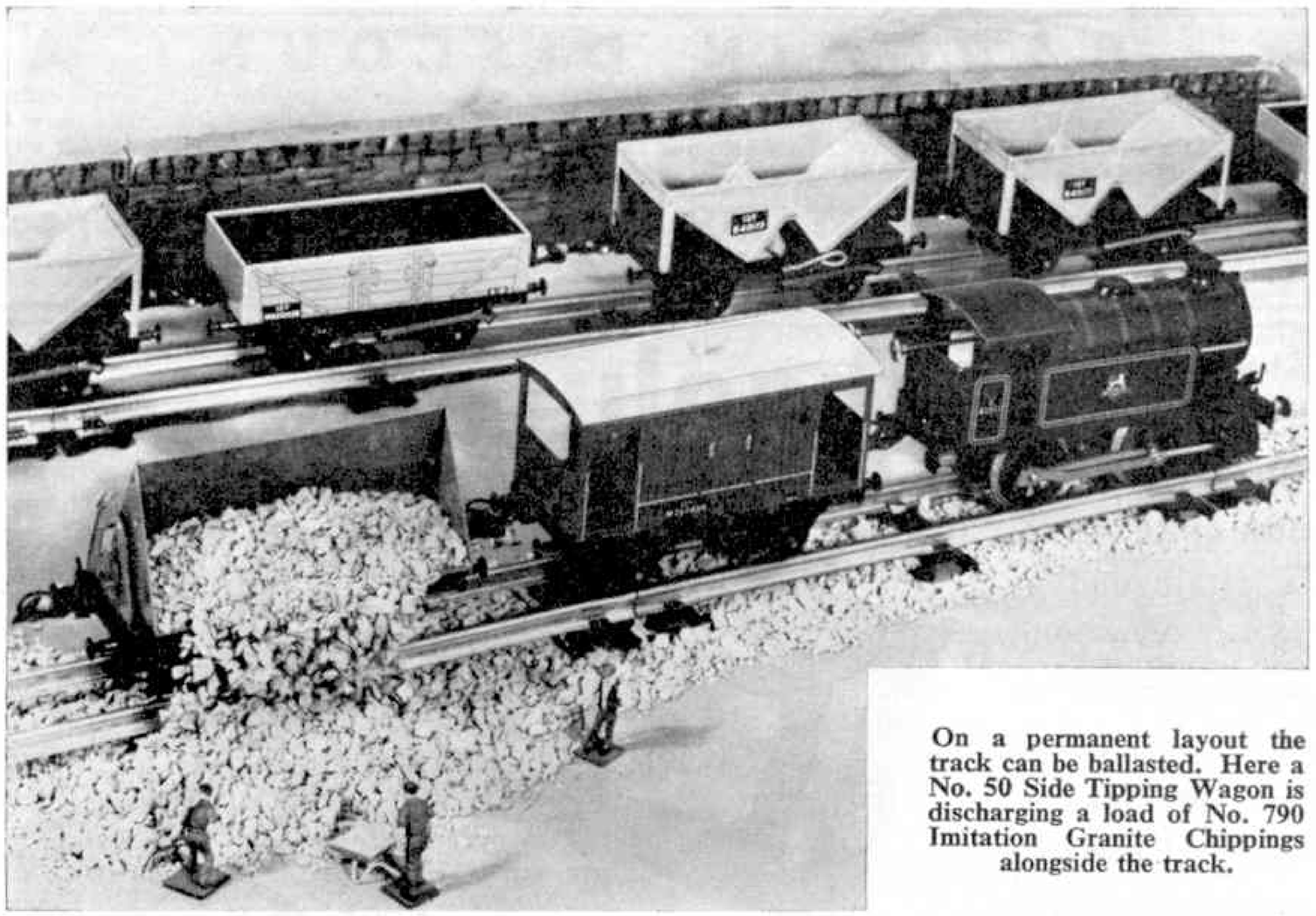
Pullman in Europe will be enjoyed by the enthusiast for its story value, and he will find it invaluable for reference. It is a book to which he will return time and time again.

Leslie Norman

FOR THE GAUGE "0"

OWNER

Hornby Track Topics



On a permanent layout the track can be ballasted. Here a No. 50 Side Tipping Wagon is discharging a load of No. 790 Imitation Granite Chippings alongside the track.

ON any railway, large or small, the success of train operations depends a great deal on the soundness of the track. Hornby tinplate track for Gauge 0 clockwork trains is stoutly constructed and will last a long time, so that Hornby Gauge 0 train owners usually have few worries as to the condition of their track, provided that due care is taken in its use generally.

Laying the rails is a simple matter and even the beginner in the miniature railway hobby soon gets used to the number and type of rails required for a particular formation. It is simple to remember that with the 1 ft. radius Curved Rails, which are included in the Nos. 20/21 and 30/31 Train Sets, a circle is formed by six such rails; therefore the curved ends of the average small oval layout will require three 1 ft. radius curves each. Similarly, with the 2 ft. radius Curved Rails included in the Nos. 41/45 Train Sets, a dozen of these rails are required to form a circle, and the half circles or quarter circles frequently needed in many layouts are readily arranged.

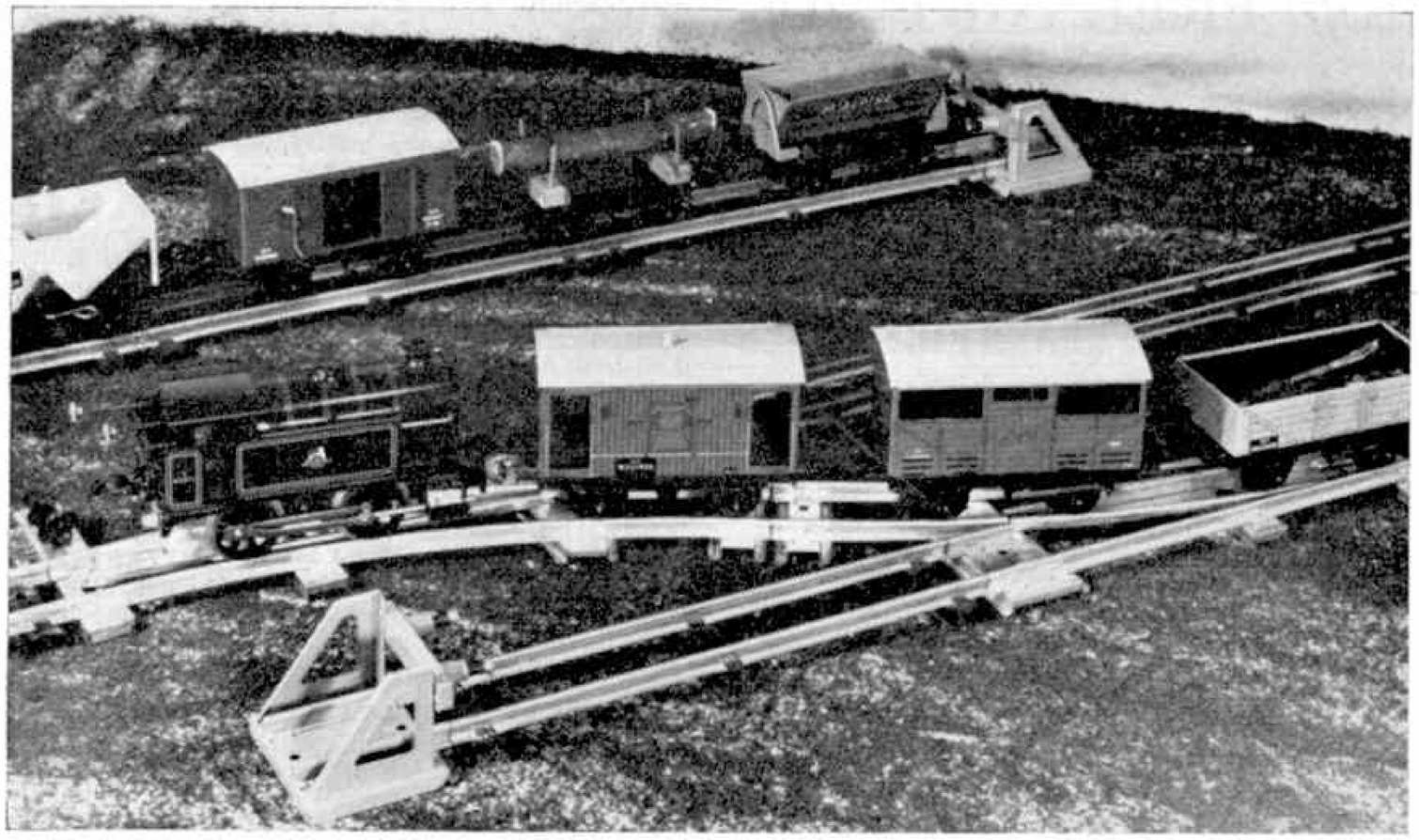
The standard Points of the Hornby Gauge 0 System, which allow a train to be switched from one track to another, are made in two varieties, for 1 ft. radius and 2 ft. radius layouts respectively, and the curved sections of the Points correspond to the standard full curved rails in each

By

"TOMMY DODD"

radius. There are Crossings, too, in the Hornby Gauge 0 track system, both Right-angle and Acute-angle, for 1 ft. radius and 2 ft. radius layouts respectively. The manner in which these and other track components can be used in conjunction with one another is illustrated in several layouts shown in the *Layout Suggestions for Clockwork Track* leaflet with which most of you will be familiar.

Two Points are used to form a crossover between the main line and the loop in this picture. The No. 40 Tank is drawing its train out of the loop.



Care in the use of rails will result in long service being obtained from them, and the reliable train running experienced will be really enjoyable. On railways that have to be taken up when they are finished with particular care is necessary when separating the individual rails from one another when train running is over and everything has to be packed up. The rails should not be "waggled" from side to side in order to free the rail joint pins, but a straight pull is necessary if damage to the hollow rail heads is to be avoided. In laying down a particular formation rails should not be forced into positions where they are subject to strain, otherwise derailments are likely to occur and in any case the rails themselves may well be damaged.

On layouts arranged on baseboards, where you are fortunate enough to have the space for this sort of thing, the rails can be screwed down to the base once they have been correctly joined together and lined up. No other fixing is necessary, but on temporary railways on the floor or table it is necessary to use the standard Rail Connecting Plates supplied with Hornby Rails to ensure that the individual sections are held securely together at the joints. The rail joint pins keep the track in line, but the Connecting Plates prevent any tendency for the rails to move apart when the trains are running. If you lose or damage any of your Rail Connecting Plates, replacements are readily available as the Plates are standard listed parts.

Keeping the track clean is an item that is apt to be neglected. Rails can become dusty and in time they are likely to become oily, especially along the rail heads, particularly when the Hornby Train owner has been a little over-enthusiastic in the lubrication of his engine and rolling stock. Fortunately, it is easy to put matters right, for the track can be wiped with a clean dry cloth.

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FOR OTHER STAMP ADVERTISEMENTS SEE ALSO PAGE 465

For Stamp Enthusiasts

Independent Jamaica

By F. E. Metcalfe

JAMAICA made a big philatelic splash when, to herald the gaining of independence last August, it not only overprinted most of its stamps with the word Independence but brought out four stamps with new designs to replace four which had been dropped, and, to complete the picture, four stamps to help pay for the Caribbean Games, plus what collectors call a miniature sheet which featured the four "Games" stamps, but imperforate. If that does not celebrate the great event of independence in a fitting stampic fashion I don't know what could.

Naturally, all this has set many collectors looking in the direction of this, the latest Commonwealth country to go off on its own. So I think that now is a good time to review the philatelic history of Jamaica.

Before dealing with the stamps, however, a word about the island itself. Jamaica is the third largest island in the Caribbean, with an area of 4,411 square miles (only Haiti and Cuba are larger). Our ubiquitous friend Columbus discovered the island on May 4, 1492, during his second voyage to the West Indies. His name for it was St. Jago (I wonder how many stamp collectors can pronounce that name correctly—oh! those Spanish J's!) after the patron saint of Spain, but the native name of Jamaica (Xaymaca, land of Wood and Water) was soon substituted.

The Spaniards never used the island for much more than a supply base for the mainland. We came along in 1655, with a party under Admiral Penn and General Venables, who had been sent out by Cromwell to capture Hispaniola (now Haiti and the Dominican Republic), but had failed so they tackled Jamaica and had little trouble in taking over, and establishing a military government. There followed sporadic fighting in the interior of the island with the Spaniards who had moved inland at the time of the capture, but in 1670 Jamaica was recognised as a British possession, by the signing of the Treaty of Madrid.

The colony soon made headway, for the buccaneer Henry Morgan and his band of followers brought wealth (albeit ill-gotten) to the place. The capital at that time was Port Royal—a fine stamp issued in 1922

depicts Port Royal as it was supposed to be in 1855—but in 1692 the town was almost completely destroyed by an earthquake, and Kingston, the present capital, took the lead. Later, large sugar estates were established, and early in the eighteenth century coffee became an important crop. If you want to find out what coffee *really* can taste like, try a cup of well-made Jamaican coffee. There was another terrible earthquake in 1907, and several severe hurricanes also have played havoc with what is, in spite of these visitations, a fairly prosperous island, at any rate by West Indian standards. All of us must wish Jamaica well.

Now for a look at Jamaica's philatelic history. As in the case of many of the colonies, the then current stamps of Great Britain were used at first. In the case of the capital Kingston, a cancellor AO1 was used, so there is no difficulty in picking out these stamps, and they are much sought after. But for some months the other Jamaican post offices only used the town's date stamp. Then in March 1959, cancellors were issued to 51 Post Offices, and these read from A27 to A78; and they were in service until August 1960. Jamaica got the first stamps of her own that year, and these were released on November 23. The values were 1d. (which in 1961 was bisected to make the ½d. rate, for a period), 2d., 4d., 6d. and 1/–. The stamps bore the portrait of Queen Victoria, and you can see a facsimile of the top value on the 1/– stamp of the 1960 issue which marked the centenary of the first set.

I am afraid that for a long, long time the stamps which followed were a rather dull looking lot (as stamps mostly were in those days, in spite of all claims for the fine old classic stamps) and it was not until 1900 that Jamaica got its first pictorial, a 1d. red depicting the Llandovery Falls (of Jamaica, not Wales). When this stamp arrived, however, they did not like the single colour, so a stamp with the vignette black replaced it. Came the stamps of the reign of King George V, still of the dull head-type. But from 1919 to 1921 Jamaica

blossomed out with a most imposing pictorial set, and to philatelists this was made more interesting when, about a couple of years after the issue appeared, there was a change of watermark. That meant two sets for those who went in for such varieties—and most collectors did and do so still.

The stamps issued during the reign of King George VI are attractive and readily available. They are all obsolete, of course, but quite a fair quantity used can be easily obtained for very little. Now is the time to go after them if you wish to take up the modern postal issues of this popular country.

Like the other colonies, Jamaica issued the usual commemoratives ("Victory", "Silver Wedding", etc.) and also a set to 10/– (August 20, 1945) to mark the new

Constitution. I am referring particularly to this issue because it can provide a lot of fun searching for the various perforation varieties.

Finally, we come to the stamps issued during the present reign, and these also can be recommended used on the grounds of cheapness and attractiveness. Mint are still reasonably priced as well, but I imagine that these prices will soon be on the rise. There is a note in the Commonwealth Catalogue which is worth repeating. Before the full "QE" definitive set appeared it was proposed to bring out a £1 stamp, of the 1949 design, but with the portrait of the Queen. These were prepared, but never issued, although a whole sheet *was* sold over the counter by mistake. When the authorities found out what had happened, they asked the buyers (a bank, it is said) to return it. They did so, and thereby parted with something worth several thousand pounds. Anyhow, that is Jamaica's philatelic history in brief, and now it is up to you.

Stamp Gossip

Automation

I READ somewhere recently that our Post Office is gradually coming round in the matter of special stamps (there was a time when it was only almost over its dead body that we got any). Compared with other postal administrations, however, there is still a lot of ground to be covered. For instance, as far as

automation in connection with the workings of the Post Office is concerned our own is right in the forefront; in fact, we have had firsts in all kinds of things but we are never told of this on our stamps.

Other countries are not so modest. Take Holland, now. This go-ahead country recently completed the automatization of its telephone system, and to mark the event a set of three quite delightful stamps have been issued, one of which is illustrated here. It was in 1881 that the Netherlands had its first telephone installed. In the early days private companies ran things, but now, of course, the 'phones are a government monopoly, as they are here (except for one district). The work now completed in Holland ends a development covering a period of 50 years—or does it? I don't think so, as none of us can stop ourselves in these days. The design of the 12c. stamp illustrated indicates the nation-wide extent of the automation.

NEW CANADIANS

Like our own Post Office, that of Canada is not very prone to issue new stamps, so it is something of an event when two special stamps are issued within a couple of weeks. It behoves us to sit up and take notice, for Canadian stamps, when we do get them, are about as popular as any in the world. They are indeed more sought after than most. The first of the two specials was a 5c. value issued to mark the centenary of the incorporation of Victoria (Vancouver) as a city, and the stamp depicts the city hall and a facsimile of British Columbia's first postage stamp. The other "special" commemorates the completion of the Trans-Canada Highway, and shows the coat-of-arms of the ten provinces through which the Highway passes in the course of its 5,000 miles (yes, five thousand). Incidentally, those provinces have a right to have their pictures on the stamp, as it was they who had to foot the bill.

KING EDWARD VIII STAMPS

I recently received a letter from New Zealand from a correspondent who had a few of the stamps issued in 1936 which bore the head of the then King, now the Duke of Windsor. My correspondent obviously thought she might possess something of value, and as there are very many people with a few of these stamps who think similarly—on average I get at least one letter a month, asking if the stamps are rare—I think a few words on the subject may be worthwhile.

As the king, and consequently the stamps concerned, had a very short reign people imagine that the latter must be scarce and, therefore, valuable. Alas, it is not so, for actually the stamps are still very common, in spite of the number which have been used for postage ever since they first appeared.

You see, it is all a question of numbers available, and as I have already said these are large, for when the stamps were going "out of circulation" apparently everybody bought some, thinking that in time they would be valuable. And so the numbers who acted thus prevented that very thing. If you have any, best use them up for postage before they are demonitised. Incidentally, not as well known to non-collectors are the same stamps which were overprinted for use in the Morocco Agencies. I am afraid that these also are quite common.

EUROPA

Ireland as a member of the European Conference of Postal and Telecommunications Administration (I am giving the title in full, for many readers seem to want to know what the letters CEPT really stand for) issued a couple of stamps on September 17 last to mark the 1962 meeting. As is generally the case with the special issues of our neighbour, the stamps are line engraved, and though they may not look very much in black and white, in the colours used (pink and green) they are quite attractive, and well worth taking up.

They have only a face value of 6d. and 1/3, so for the time being, at any rate, they are cheap enough, but you never know what can happen to stamp values later on—not that this pair is ever likely to prove as scarce as the two "Europa" stamps issued by Ireland as recently as 1960. When they were received two years ago you could buy a pair for very little over face value (1/9). In Ireland itself you could get them at face. Now the price is nearer two pounds than two shillings. To repeat, the new ones are not likely to go up like that, but you cannot go far wrong at the price being asked for the stamps as these lines appear.

EMPIRE GAMES

How many of us wish we could go over to sunny Perth, Australia, to watch the Empire Games which will be taking place about now. Lucky are those who can do a hundred yards in ten seconds, but as few of us can do that, well, we will have to be content with the consolation prize which

(*Continued in col. 2, next page*)

By E. W. Argyle

Locomotives On Stamps

LOCOMOTIVE No. 498.038, one of the series of three-cylinder expresses built for the Czechoslovakian State Railways by Skoda Works, at Pilsen, since the war, weighs 96½ tons empty or 106 in working order, and has a maximum speed of 75 m.p.h. A 4–8–2, the class is a development of the 486.0 series, built for the haulage of the heaviest express trains at a high travelling speed. The 498's were the last steam locomotives to be built in Czechoslovakia—for in 1958, the government decided to build diesel and electric locomotives only.

One of the most unusual designs for a railway stamp was that used by Cuba, in 1950, when three stamps were issued for the Retirement Fund for Communications (Postal) Employees. All the stamps show a train smash which occurred in May 1947, when two Postal Sorters, employed in the Railway Travelling Post Office on one of the trains involved in collision, lost their lives. The men's portraits are shown on the stamps.

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2,500 QUALITY STAMPS sent to you in a box on approval. Pick where you like at only 1d. each. Fabulous value—British Colonials, Foreign, Space and New Issues included Parent's approval essential under 16. 2½d. stamp appreciated.
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FOR OTHER STAMP ADVERTISEMENTS SEE ALSO PAGE 462

Stamp Gossip—(*Cont. from previous page*)

Australia, as the host country, has prepared in the way of a couple of quite attractive stamps to commemorate this great athletic event. Of course these stamps will be in demand by collectors of British Commonwealth issues, but besides

these, all that multitude of thematic collectors who take "sports" stamps will want copies, so the demand will be brisk. This will be good publicity for the hobby and the Games themselves. The values are 5d. and 2/3, so with the Australian Pound only costing 16/– a set will be cheap enough, while current.

THE TIP OF THE MONTH

I am going to write in general terms in giving my tip this month. After the last world war there was a lot of loose money about and those even remotely interested in stamps of the British Commonwealth bought simply reams of "Victory" issues, etc. I heard of a syndicate actually buying into the teens of thousands of pounds' worth (merely as a speculation, and they burned their fingers in consequence). But things are changing. There is little or no speculative buying of recent issues, as can be seen from the sales figures of sets like the Pitcairn Island "Return" issue, as given in the latest edition of the Common-Wealth "QEII" Catalogue which has just appeared. So for those who like nice little attractive sets, which have a reasonable chance of improving in value, recent special issues of the Commonwealth are to be recommended.

NEW BOOKS FOR THE STAMP ENTHUSIAST

Philately is one of the most popular hobbies in the world, and it is reckoned that at least 3,000,000 new enthusiasts join its ranks each year. Like every worthwhile leisure pursuit, it has to be taken up not only enthusiastically but intelligently if the utmost enjoyment is to be derived from it. The newcomer to the hobby will find a good handbook on the subject a very valuable aid, and **Stamp Collecting** by E. H. Spire, one of the neat pocket-size "Nutshell Books" published by Collins (U.K. price 5/–), is just the thing to set him on the right path.

Starting with an outline of postal history, the author tells the beginner about the different kinds of stamps he will meet and the equipment he will require. Full instruction is given in identifying stamps, looking after them and mounting them, distinguishing watermarks and postmarks, and writing-up an album. The problem of which kinds of stamps to collect is discussed at length, and other chapters of special interest deal with the making of stamps, the strange errors which can render stamps valuable, and famous collectors and collections. Line drawings illustrate the text wherever they are helpful, and there are four pages of stamp illustrations in colour and eight pages in half-tone.

Another excellent introduction to this hobby is **Stamp Collecting** by Kenneth F. Chapman (Arco Publications, 12/6). Here the reader learns much of interest about members of Royalty and other famous people who have been ardent stamp collectors, and about important national stamp collections in this country and in the United States. How to handle stamps correctly, types of albums, arranging and mounting, storing duplicates, and general and specialised collecting are dealt with, and an excellent chapter on stamp catalogues is followed by a list of philatelic literature published in this country and abroad.

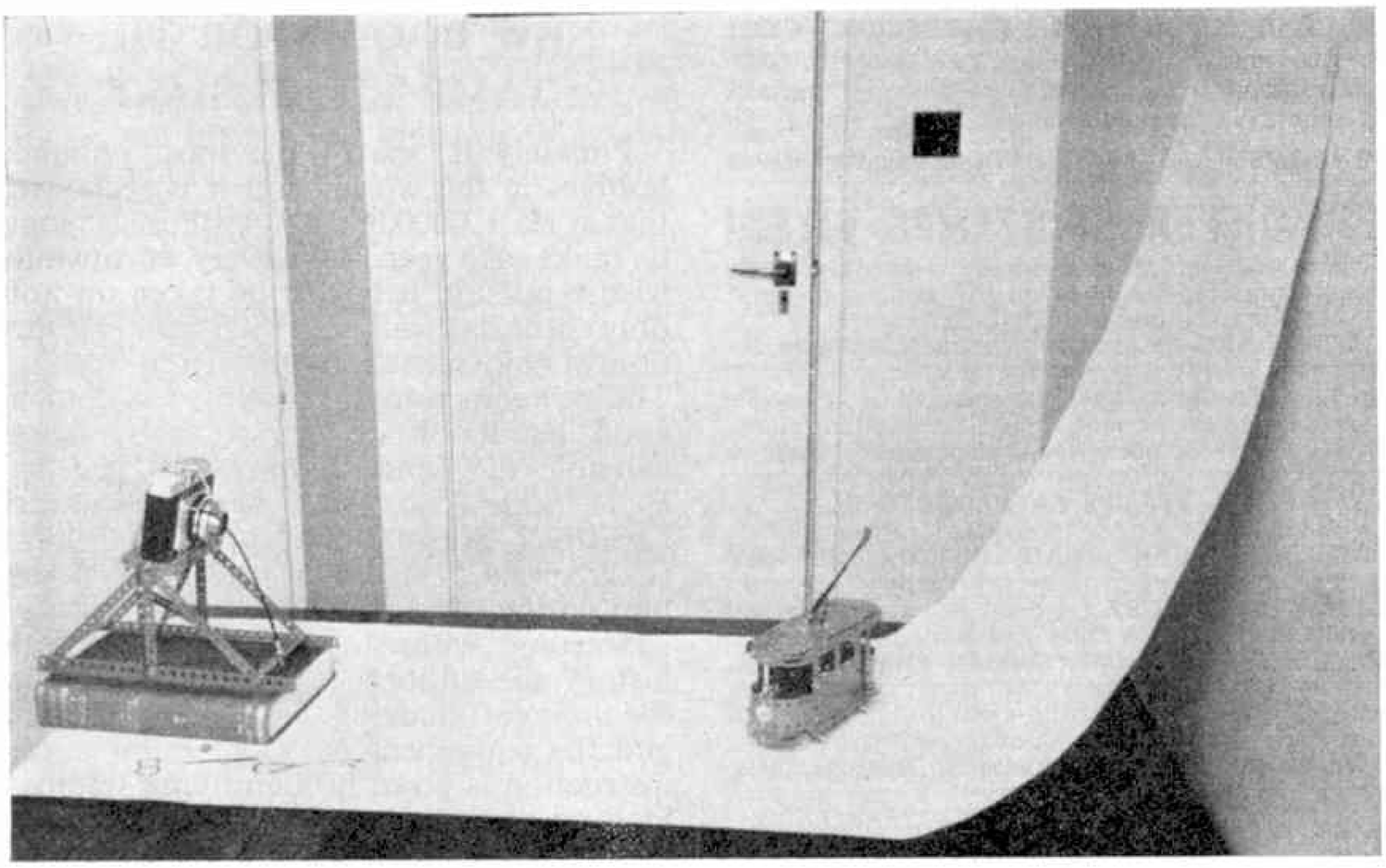
There are few life-long hobbies that can pay for themselves, and stamp collecting is one of them, and the author shows how the average man or woman can be either a stamp collector or an advanced philatelist on a moderate outlay, and how both can safeguard their expenditure and at least break even if it ever becomes necessary to sell their stamp collection.

The book is illustrated by line drawings and eight pages of half-tone reproductions of stamps.

BACK NUMBER "M.M.s"

To clear small stocks still in hand of all issues July 1961 to October 1962 the price per copy has been reduced to 1/–, including postage, etc.

Write to the Publishing Department, *Meccano Magazine*, Binns Road, Liverpool 13, enclosing a postal order for the appropriate amount.



The set-up for photographing a Meccano model against a plain white background. The camera is supported by the Meccano Camera Stand described in the November 1961 "M.M."

TWO HOBBIES THAT GO WELL TOGETHER

MECCANO model-building and photography are two hobbies that go well together. Meccano can be used by photographers in all sorts of ways. Similarly, photography is an invaluable aid to keen Meccano model-builders. Taking photographs of your best Meccano models is an excellent way of keeping a record of your work. Close-up photographs of details of models are useful also to remind you, for instance, of how you worked out a particular mechanism.

In Meccano model photography lighting and background are very important; occasionally, natural backgrounds can be used. A model mechanical shovel, for instance, can be pictured on a suitable "site" in the garden or a Meccano bridge can be shown in use on your Hornby-Dublo railway.

Most models, however, show up best against a plain white background. You can arrange this quite simply as shown in our top illustration. A roll of plain white (or off-white) paper, such as lining paper, obtainable from any wallpaper shop, is ideal. The paper is attached to the wall or other suitable support and allowed to fall naturally in a curve, as shown. The model is placed on the paper and the camera positioned so that the model is nicely centred.

Larger models sometimes need two widths of lining paper behind them. You can easily join sheets of lining paper by overlapping their edges by an inch and sticking them with a quick-drying rubber-based adhesive such as *Copydex*.

Unless your model is large you must move in close to get good pictures. Even if your camera does focus down to three and a half feet (nearest focus point of the majority of cameras with focusing adjustments) you will probably need to use positive supplementary lenses. These lenses fit over your camera lens, are quite inexpensive, and can be had in powers of 1, 2 and 3 "dioptres". They enable you to come as near as ten inches to your subject, even with a fixed focus camera. Full instructions for using these lenses are given with them. Regular readers of the *M.M.* will remember, of course, that we discussed the use of supplementary lenses—including some spectacle lenses—in close-up photography last November and December.

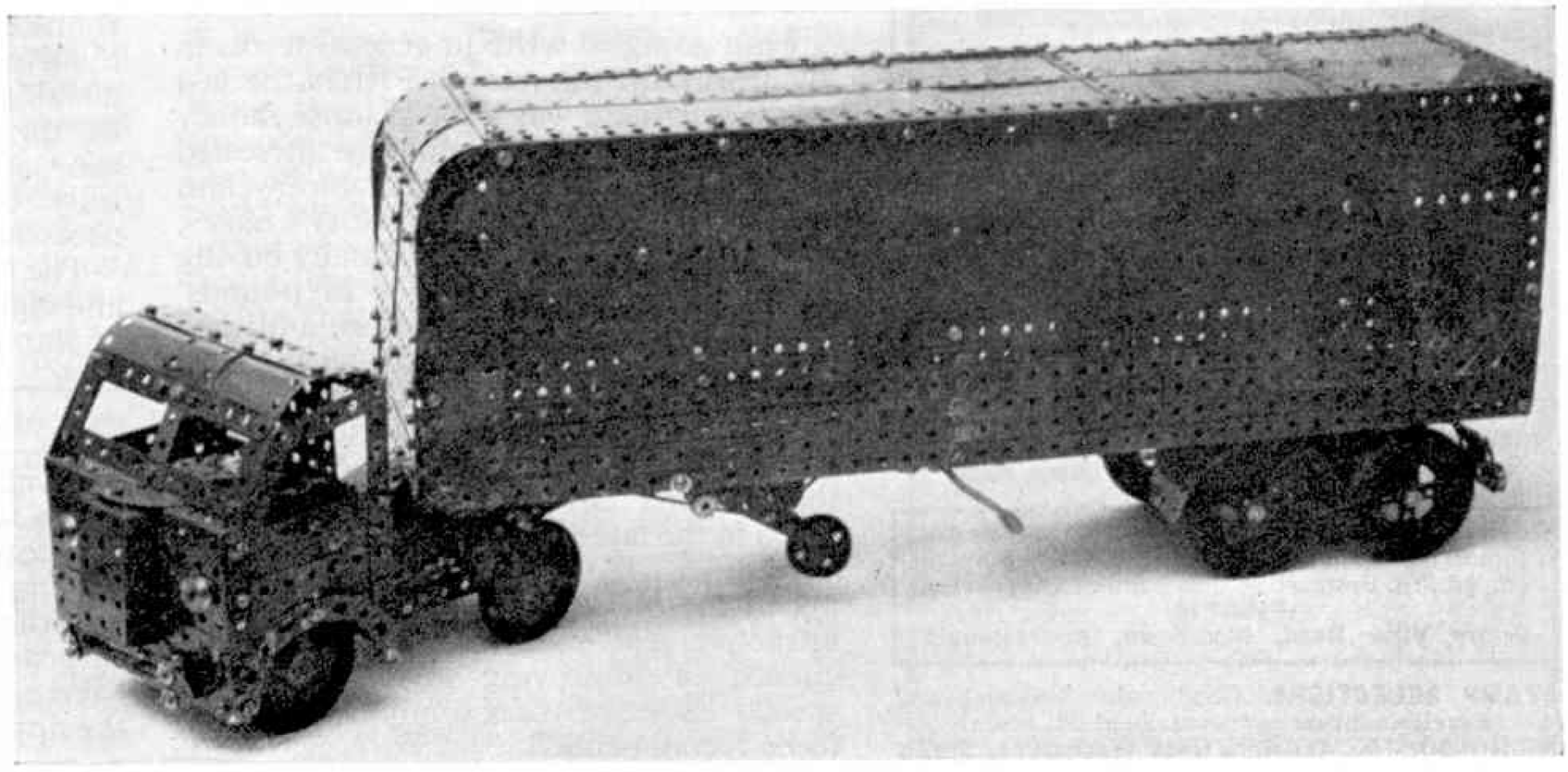
It goes without saying that pictures of Meccano models must be really sharp. The camera should always be held firmly on a tripod or Meccano Camera Stand and, if possible, a cable release should be used.

Lighting should be indirect, so that no harsh shadows are cast which might obscure important details. Bounced flash is ideal. This kind of lighting consists simply of aiming your flash gun at the wall, ceiling or other light flat surface, so that when the flash bulb is fired light is reflected off the surface on to your subject. The right exposure must be found by trial and error but, as a start, try measuring the total distance the light has to travel and divide that distance into the flash bulb Guide Number to calculate the aperture you should use.

Next month: More about Guide Numbers, Christmas and After-Dark Photography.

SPECIALLY FOR PHOTOGRAPHERS

By H. G. FORSYTHE



A fine Meccano model photographed by the method described in this article.

Railway Notes—(*Continued from page 441*)

restored T9 4–4–0, illustrated in these Notes and described in my September article, hauled the 12.42 p.m. Waterloo–Basingstoke and 7.40 p.m. back—semi-fast trains! Later, Schools 4–4–0s took this duty and hauled other expresses. Lord Nelson 4–6–0s were also employed similarly, although to a reduced extent. Certainly on one notable occasion, one of the last of the once-famous King Arthurs—No. 30782, *Sir Brian*—took expresses to Salisbury and back. During one four-hour period of observation near London the different locomotives recorded were of the following classes: eight Merchant Navy 4–6–2; eighteen light Pacifics; three Schools; seven B.R. class 5 4–6–0s; three S15 mixed traffic 4–6–0s. There were also three D6500 class diesels, two being on Southampton Liner Specials.

On the cross-country Redhill–Guildford–Reading line, including through holiday trains to and from the Midlands via Oxford, engines in evidence included the Manor class 4–6–0 and the 6300 class 2–6–0 from the Western Region, running on to Southern metals at Reading. There were also S.R. Schools, U and N 2–6–0s and a Q1 0–6–0. A green B.R. class 4 4–6–0 with double chimney, No. 75006, also came through from Birmingham (Snow Hill) to Redhill, S.R.

A GOOD RUN

In the first season of diesel locomotive employment for such duty I logged quite a good run with an 11-coach, 400-ton South Coast to Birmingham train between Polegate and Brighton. Over a short course made difficult by slowings and gradients No. D6592 gained slightly on booked time and provided me with a faster overall figure than my best of ten years ago behind No. 30900 *Eton*, when Schools class engines were sometimes used on that section. I should say that the latter's minimum speed at the top of the 1 in 88 Falmer Bank was higher than that achieved by the diesel.

To and from Brighton, through long-distance holiday trains running mostly by way of the West London connecting lines have been noted hauled by L.M.R. class 5 4–6–0s; West Country 4–6–2s, Schools 4–4–0s and U1, N1 and N 2–6–0s.

"Fancy! That nice garage man is actually waving goodbye!"

The Casquets—

(*Continued from page 429*)

put the light out of action.

Casquets is only one of many British lighthouses each of which has its own colourful and fascinating history. Many, like Casquets, have strange sea stories associated with them. The rock lighthouses, such as Eddystone and the Wolf Rock Lighthouse, are remarkable examples of British design and engineering. All perform the same function—to guide the mariner safely to port.

The Casquet Rocks are no longer the scene of wrecks and tragic loss of life. Only memories remain—memories of ships like the s.s. *Stella* and those who sailed in the doomed vessels.

A Matter of Space—

(*Continued from page 459*)

You can only see part of the layout illustrated in our third picture, but there is enough of it showing to indicate that the railway is a most interesting one of fair size and obviously permanent in character. This Three-Rail system is operated by Peter Smith, of Alford, Lincs, who has plenty of traffic to handle, judging by the amount of rolling stock evident in the photograph.

Peter appears to specialise in freight train working, and his note on the photograph reproduced here explains that the 2–8–0 Locomotive and train near the centre of the picture is held at the signal, while the 0–6–2 Tank in the right-hand corner is busy on the shunting operations in the goods yard.

This yard is arranged outside the main line, and in this respect the system differs from the two others we have just been reading about. It is clear, however, that there are various features within the area enclosed by the main line, as several engine sidings end in the buffer stops on the left-hand side of the picture.

JUST A LITTLE MORE

The overnight charge at youth hostels was increased last month (October) from 3s. to 3s. 6d. This applies only to those over 16; juvenile members will still pay only 2s.

Other Y.H.A. charges remain unchanged. A three-course evening meal costs 3s., breakfast 2s. 6d. and lunch packet 1s. 6d., so that even with the increase youth hostelling costs only 10s. 6d. per day. Subscription rates are also unchanged at 15s. for those over 21, 10s. from 16 to 21, and 5s. from 5 to 16. A membership card taken out now is valid until December 31, 1963, and entitles the holder to use over 270 hostels in England and Wales, and also some 3,000 in 33 countries abroad.

"Well! are *they* comfortable sir?"

£1,000,000 Continuous Casting Plant

The biggest plant in the Western World for the continuous casting of steel, designed and built by Distington Engineering Company Limited, of Workington, Cumberland, was recently put into service at Appleby-Frodingham Steel Company's Works, Scunthorpe. Both companies are members of the United Steel group, and Distington designs and builds plants for continuously casting steel in collaboration with Concast A.G., of Zurich.

Built at a cost of one million pounds this 100 ft. high plant, capable of an annual output of 250,000 tons, is designed to cast continuously 9 inch square blooms in four strands simultaneously. The blooms will be supplied to the new Schloemann-designed breakdown, rod and bar mill at Appleby-Frodingham, also being built by Distington and now nearing completion. Molten steel for the new Distington continuous casting machine at Appleby-Frodingham is produced in the *Ajax* open hearth furnaces in the Appleby melting shop and conveyed in a 90-ton, lip-pouring ladle by means of a transfer carriage to the casting platform. Here, the steel is poured into a tun-dish equipped with four stopper-controlled nozzles. On lifting each nozzle, the steel enters the water-cooled copper mould and passes progressively through sprayed-cooled roller aprons and withdrawal rolls at a casting rate of 48 in. per minute.

The solidified blooms are cut in the vertical position, by oxy-propane burners which travel with the blooms, into lengths of 20 ft. to 24 ft. 6 in., and are then transferred by means of tilting baskets on to a 110 ft. long inclined discharge conveyor. At the head of this conveyor the blooms are raised to ground level by tilting roller tables, then loaded by overhead crane on to rail wagons, ready for despatch to the rod and bar mill.

The weekly rated output of 5,000 tons will be under the control of only eight operatives per shift—six manning the continuous casting plant, and two crane drivers.

* * * *

GAMAGES 1963 MODEL BOOK

Within the 128 pages of this latest edition of Gamages' well-known catalogue (price 1/–) is detailed a vast array of model trains and railway accessories (including Hornby and Hornby-Dublo), aircraft, ships, motor boats and yachts, Dinky Toys and Supertoys and other miniature cars, etc. Model motor racing outfits, chemistry and magnetism-electricity sets, Meccano, Bayko and other construction outfits, and the well-known Mamod range of model steam engines also have a place.

Fireside Fun

Timothy was the centre of an admiring crowd after he had rescued a playmate from an icy pond.

"You splendid lad," exclaimed one woman. "Tell us how you came to be so brave and save your friend."

"I had to," said Timothy. "He was wearing my skates."

* * * *

"Since the Head Clerk has died," the brash young fellow told his boss, "do you think I could take his place?"

"It's o.k. with me," said the boss, "if you can arrange it with the undertaker."

* * * *

A Naval officer fell overboard and was rescued by a deck-hand. The officer was effusive in his gratitude and begged the deck-hand to let him know how he could reward him.

"The best reward for me, sir," answered the sailor, "would be for you to say nothing at all about it to anyone. If the other chaps knew I'd pulled you out, they'd shove me in."

"Will you please show me something in between"

Johnny was the son of an automobile mechanic. A visitor to the house asked, "And how are you getting along in your spelling Johnny?"

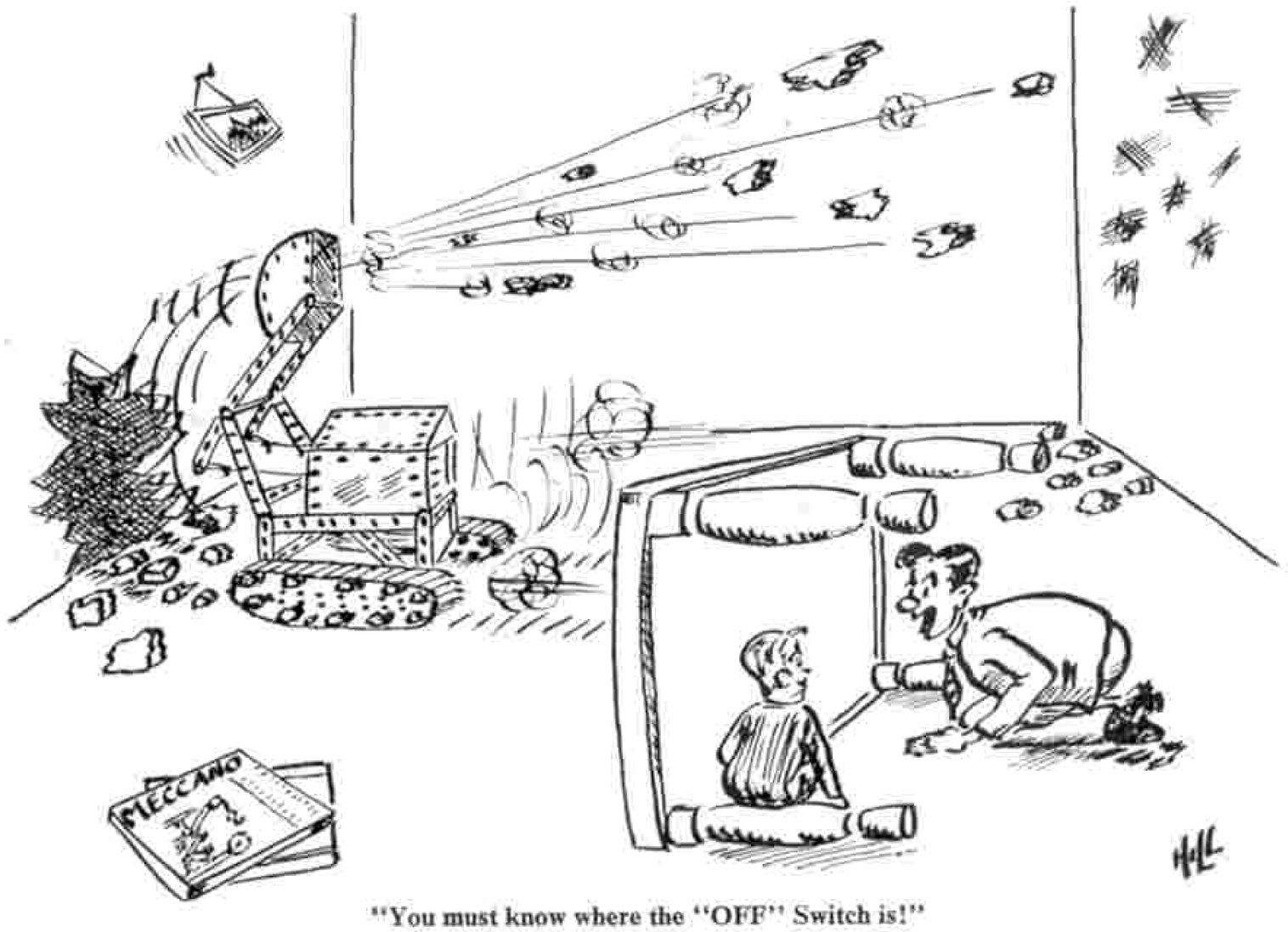
"Oh, fine," the lad replied. "We've just begun to assemble words of six cylinders."

* * * *

"Father," said Tommy, running into the drawing-room, "there's a big black cat in the dining room."

"Never mind, Tommy," said father, "Black cats are lucky."

"This one is father: he's had your dinner!"



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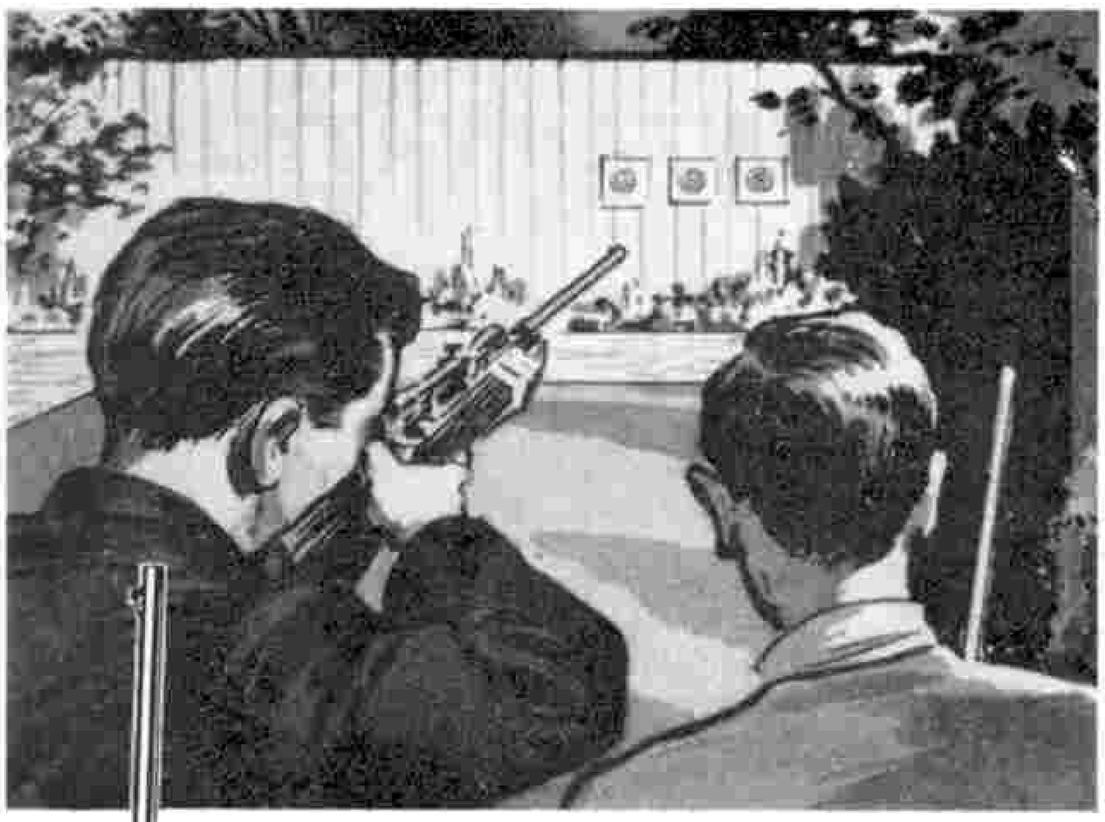

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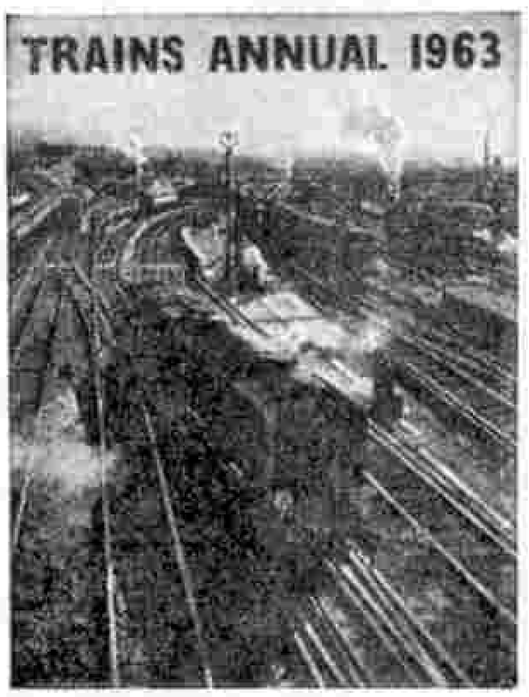

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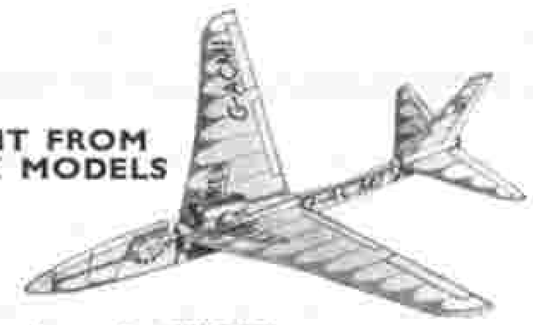

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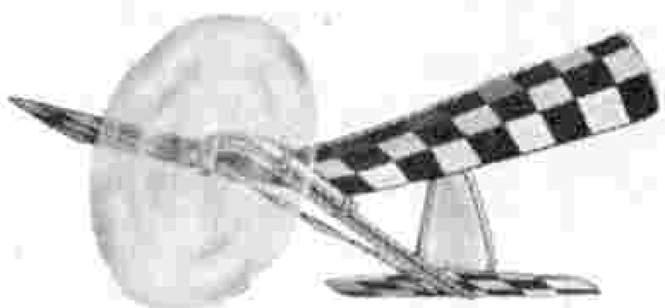

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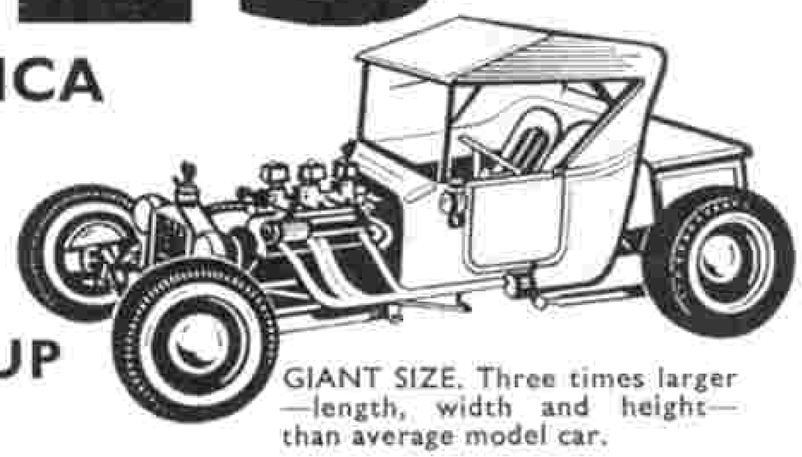

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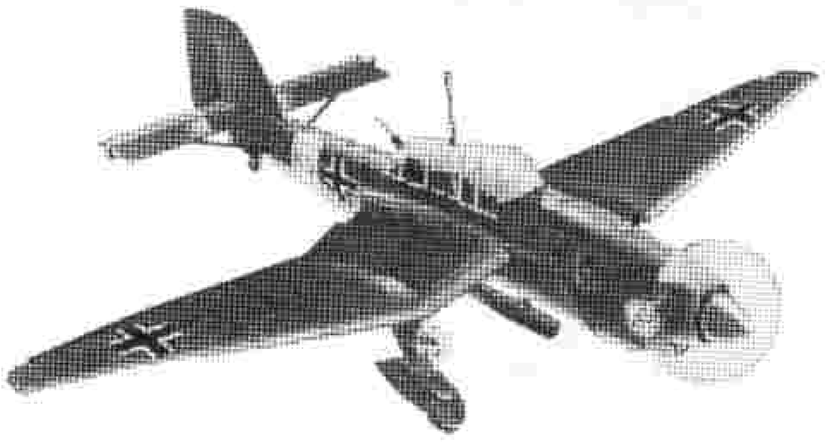

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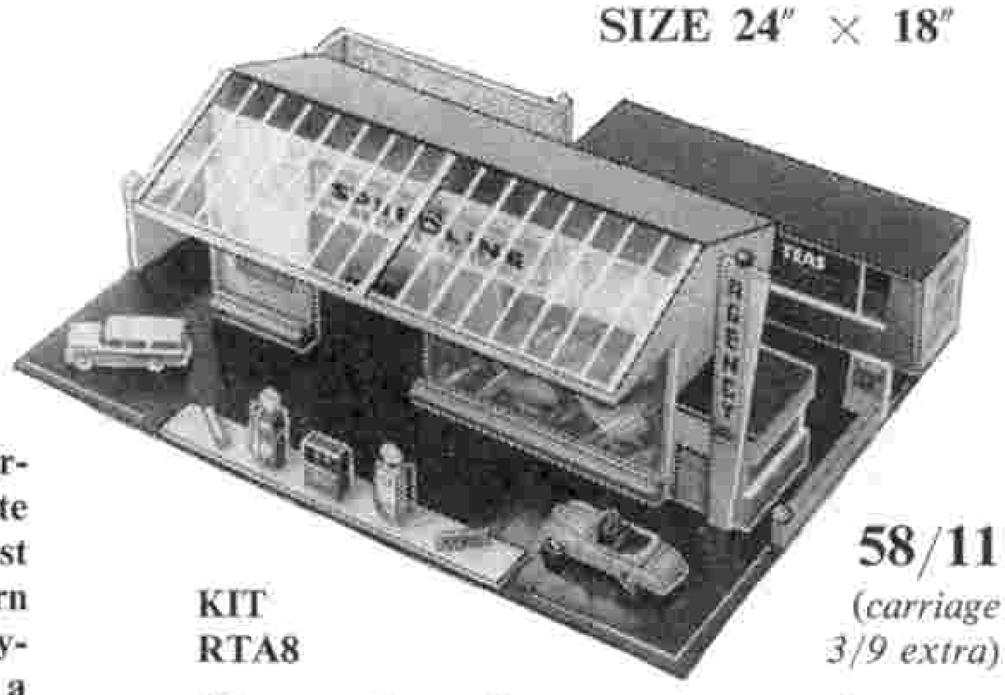

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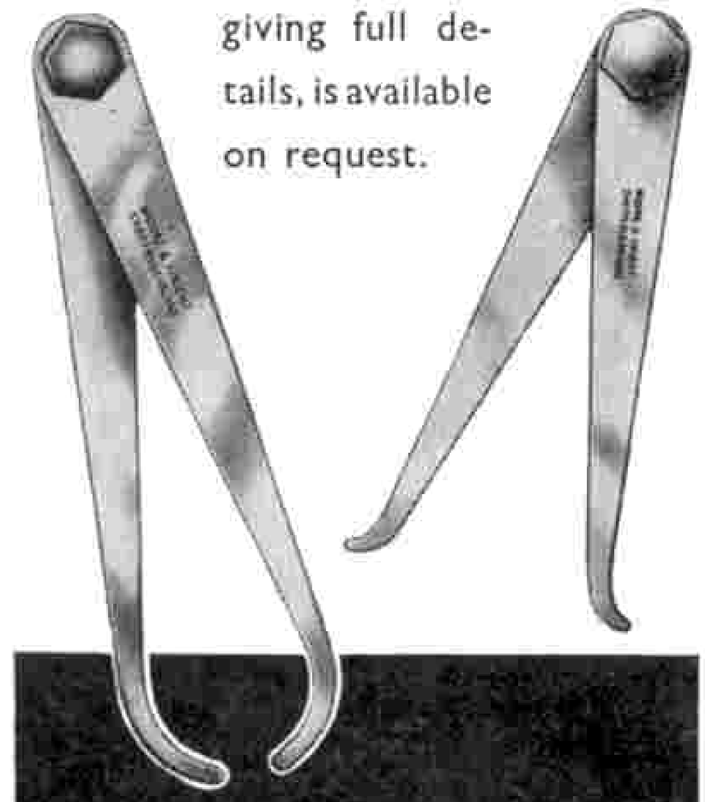

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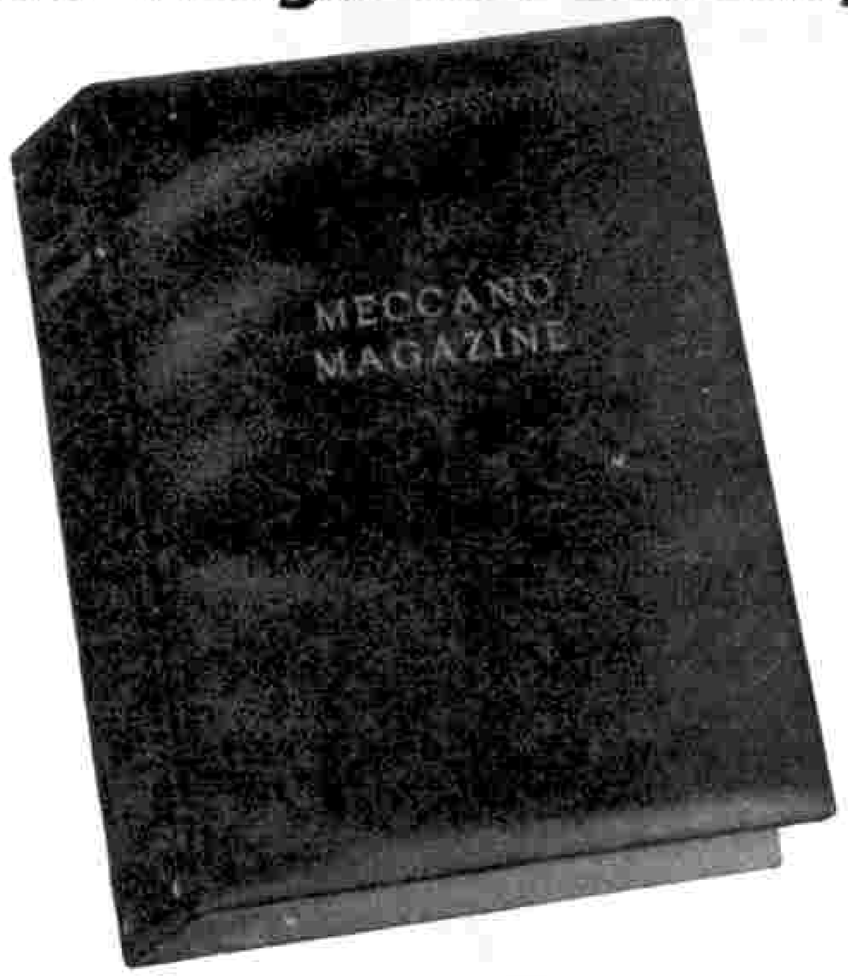

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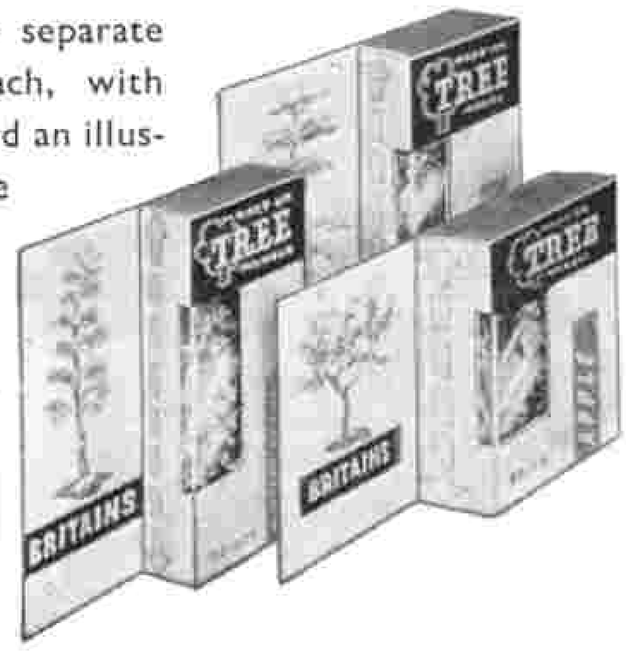

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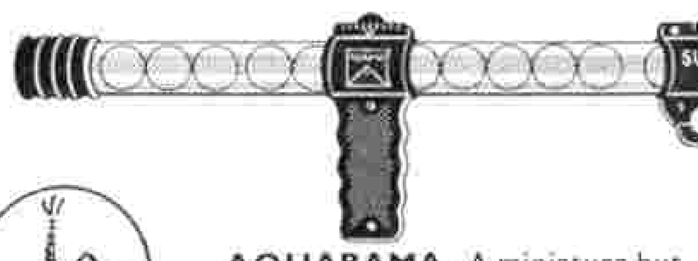

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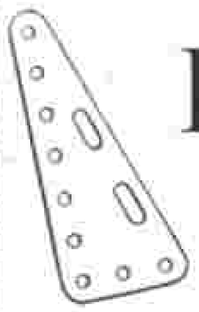

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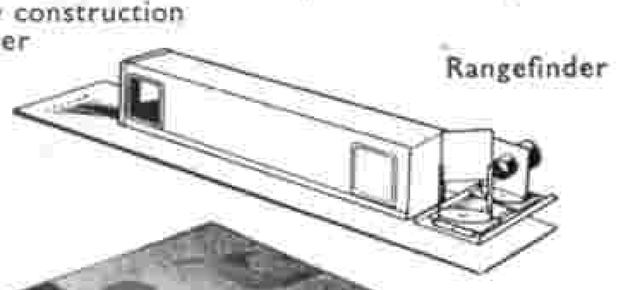
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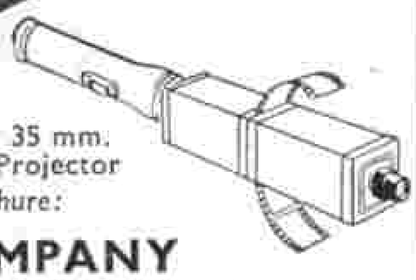
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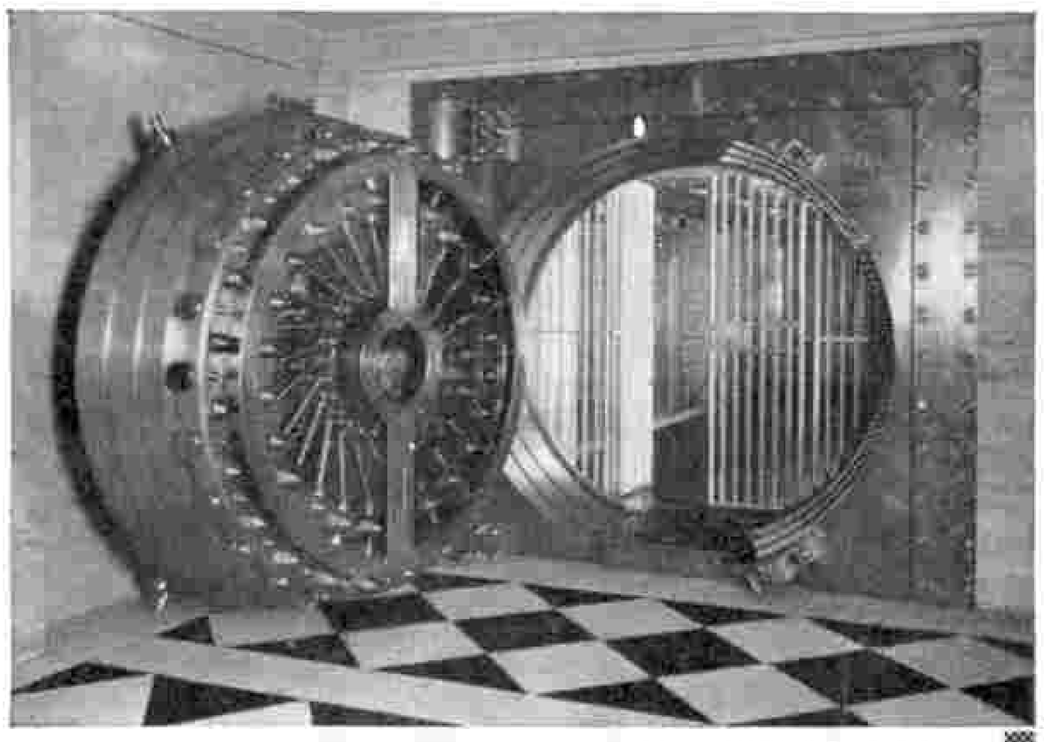

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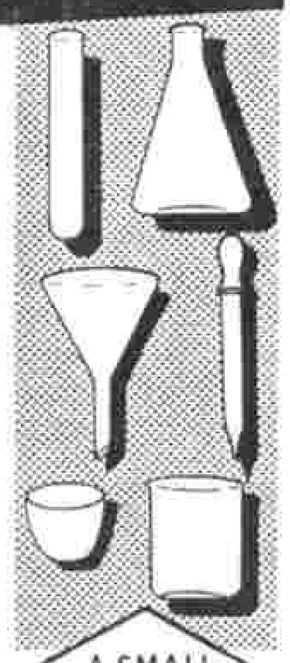

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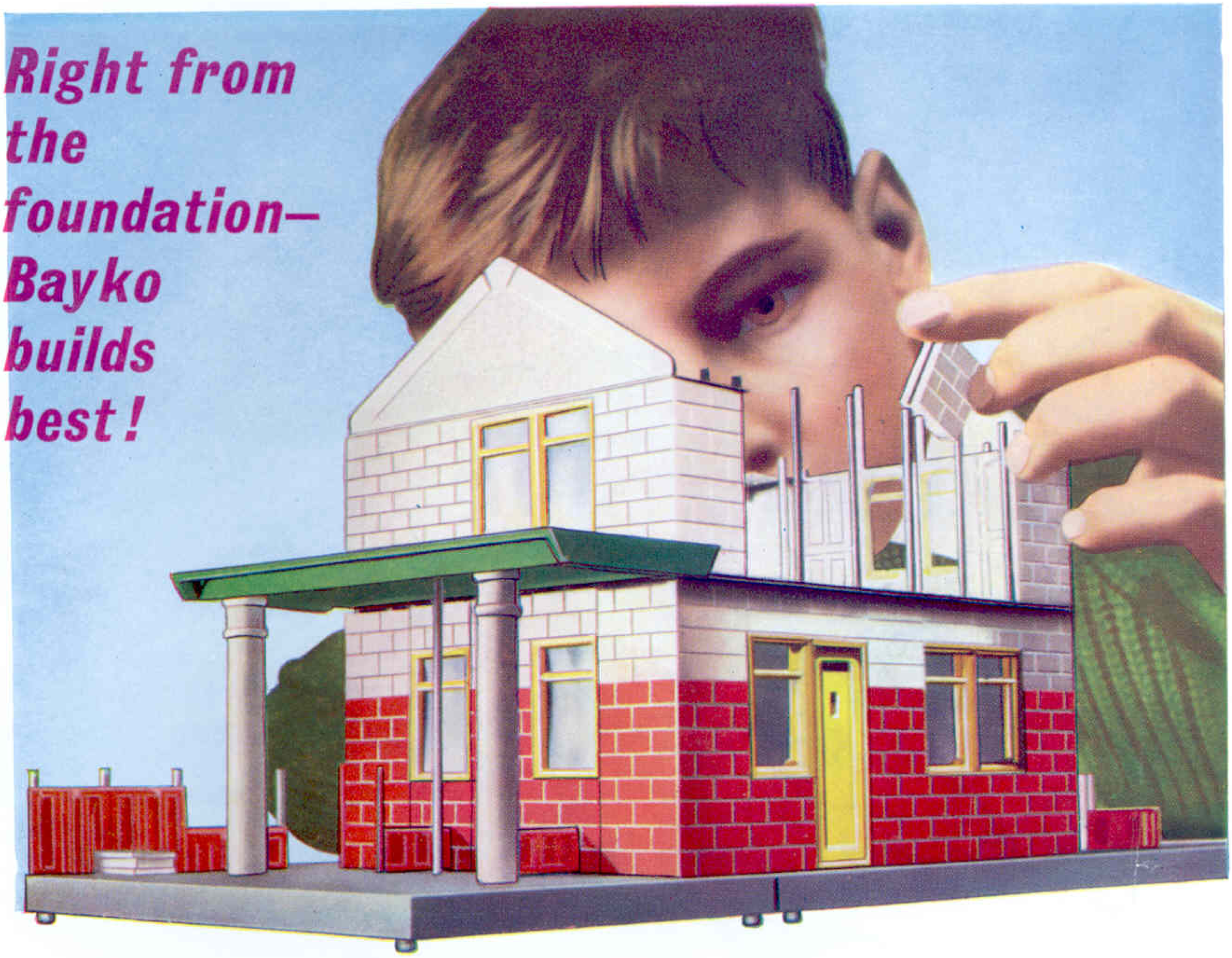

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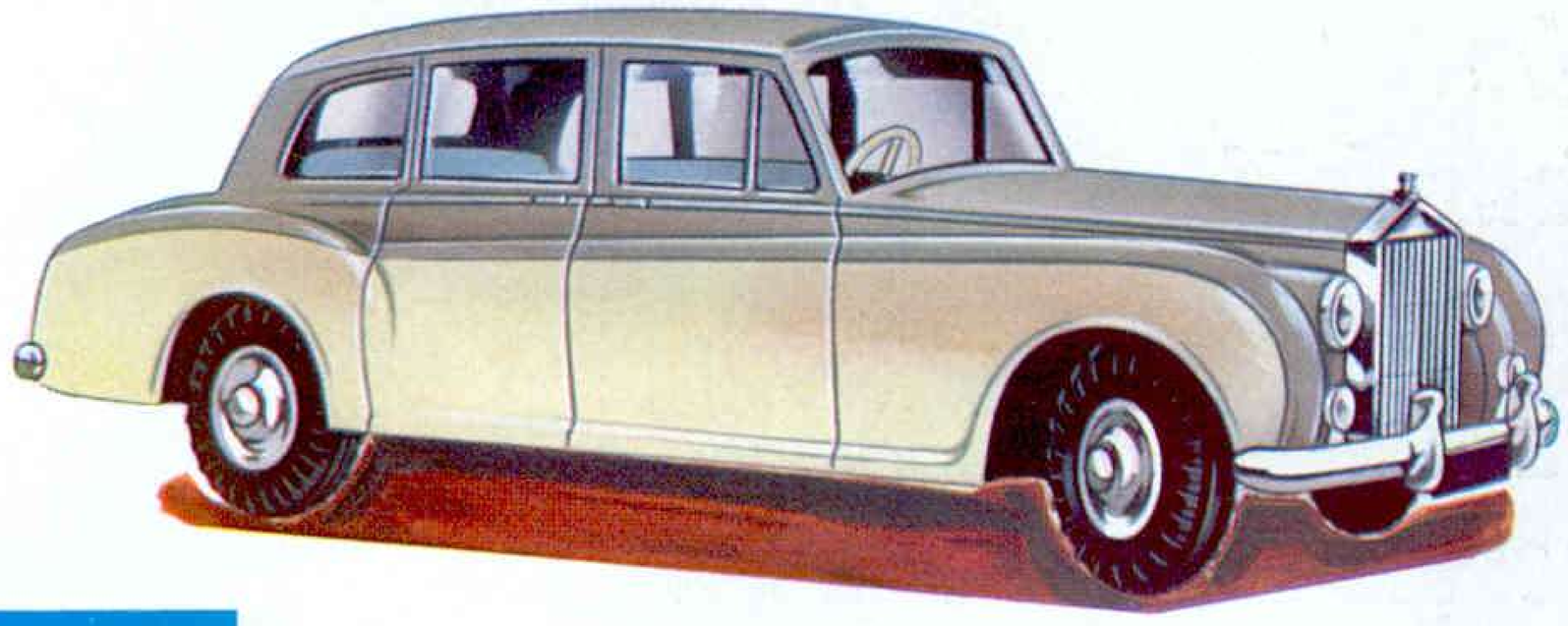

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